



Research on the Reform of Logistics Information Technology Teaching Under the Background of “Intelligent Logistics”

Chang Liu

School of Economics and Management, Taishan University, Tai'an, Shandong, China.

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Corresponding author: Chang Liu, School of Economics and Management, Taishan University, Tai'an, Shandong, China.

Abstract

With the rapid development and application of information technology, the logistics industry is experiencing unprecedented changes, in this context, logistics information technology teaching is also facing great challenges and opportunities. In order to adapt to the development needs of intelligent logistics and cultivate high-quality talents in line with the needs of the industry, logistics information technology teaching needs to carry out in-depth and comprehensive reform. In this regard, the updating of teaching materials and curriculum content, the strengthening of practical teaching, and the provision of professional training and development opportunities have become the key directions of teaching reform. The purpose of this paper is to discuss the status quo and problems of logistics information technology teaching under the background of "intelligent logistics", as well as the significance and strategies of reform. It also explores the reform paths and methods of logistics information technology teaching from the perspectives of adapting to the development needs of the industry, cultivating innovative talents, and responding to the needs of society, with a view to providing useful thoughts and references for the reform of logistics information technology teaching.

Keywords

Intelligent logistics, logistics information technology, colleges and universities, teaching reform

Introduction

In today's rapid development of science and technology, the logistics industry, as an important part of the global economy, is experiencing a revolutionary change led by "smart logistics". Relying on modern information technology, intelligent logistics, through data analysis, the Internet of Things, and other means, to achieve the optimal allocation of logistics resources, and then greatly improve the efficiency and quality of logistics services. In this wave of change, the teaching of logistics information technology is also facing a major transformation pressure. It needs a comprehensive teaching reform to better adapt to the industry change and talent training needs.

1. Problems in the teaching of logistics information technology

1.1 Outdated teaching materials and curriculum content

There is an obvious disconnect between the updating of teaching materials and course content and the actual

development of logistics information technology, and this contradiction is particularly prominent in the modern logistics education system. The traditional teaching content mostly focuses on the learning of basic theories and basic models, while the new technologies, models, and methods emerging in the current industry are rarely explored (Tang Li, 2021). This leads to the fact that it is difficult for students to directly apply the knowledge they learned in school to practical work, which affects their employment competitiveness. In addition, due to the lagging content of teaching materials and courses, it is difficult for students to have a comprehensive and in-depth understanding of logistics information technology. This not only restricts the cultivation of students' innovative thinking and practical ability but also hinders them from accurately grasping the future development trend of logistics information technology. At the same time, this disconnection also leads to great difficulties for teachers in the teaching process, who have to spend a lot of time and energy to find the latest academic materials and industry reports to make up for the shortcomings of the teaching materials and course contents.

1.2 Insufficient opportunities for practice

The lack of practical opportunities makes it difficult for students to closely integrate theoretical knowledge with practical applications in the learning process, which is undoubtedly a great pity. This learning mode detached from practice may lead to a lack of in-depth and comprehensive understanding of logistics information technology by students. Although theoretical knowledge is important, it is relatively vague and useless if it cannot be applied to practical work (Guo Zhiying, 2022). Therefore, the lack of practical aspects in the teaching and learning process will undoubtedly have a negative impact on students' learning interests and learning effectiveness. The lack of practical opportunities not only restricts the development of students' skills and the application of their knowledge but also may weaken their innovative and problem-solving abilities. Real learning and understanding come from the practical application and practice of knowledge. Only through practical operation can students better understand theoretical knowledge and identify and solve problems in practice. If there is a lack of practical opportunities for a long period of time, students may become conservative and dependent on book knowledge and lack practical problem-solving skills and innovative thinking.

2. The significance of logistics information technology teaching reform in the context of "intelligent logistics"

2.1 Adapting to industry development needs

"Intelligent logistics" brings the deep integration of information technology and logistics management, which requires future logistics talents not only to have solid knowledge of logistics management but also to master modern information technology, in order to adapt to the digital and intelligent development of the logistics industry. Therefore, the teaching reform of logistics information technology should be oriented to adapt to the development needs of the industry, integrate the most cutting-edge information technology into the teaching of logistics management, and cultivate students' innovation ability and practical operation ability, so that they can quickly adapt to the development of the industry after graduation, and become professionals with a high level of professional knowledge and practical operation ability (Chen Hui, Chen Chengdong, & Lai Liping, 2021). The teaching reform that adapts to the development needs of the industry will make the educational content and the actual industry more closely integrated, and the teaching content will be closer to reality, more forward-looking, and practical. Such teaching reform will be more conducive to cultivating students' practical application ability and innovative thinking, and help them achieve better development in their future careers.

2.2 Responding to the needs of society

In the context of "intelligent logistics", the significance of the reform of logistics information technology teaching is that it directly responds to the diversified needs of society. With the rapid development of science and technology and the continuous progress of the social economy, intelligent logistics has become the development trend of the logistics industry, and the teaching reform of logistics information technology is to better adapt to this development trend, to better meet the multi-level and multi-faceted needs of society. Responding to the needs of society means that the teaching content and methods need to be adjusted and updated in time to meet the development and changes in the logistics industry. This includes not only the introduction of the latest logistics technology and concepts but also the comprehensive and multi-faceted training of students so that they not only have solid professional knowledge but also a good sense of professionalism and social responsibility. Through continuous teaching reform and innovation, students can better integrate into society, better serve the community, and meet the urgent needs of society for high-quality logistics personnel.

3. Strategies for the reform of logistics information technology teaching in the context of "intelligent logistics"

3.1 Updating course content

Among the strategies for reforming the teaching of logistics information technology in the context of smart logistics, updating the curriculum content is a crucial strategy. This strategy is to ensure that the teaching content can keep up with the development of the times, as well as the latest progress of the logistics industry and related technologies, so as to provide students with a cutting-edge, practical, and comprehensive knowledge system, and to help them better adapt to and lead the development of the industry in their future careers.

Taking the reform of logistics information technology courses in a logistics college as an example, the college has gained an in-depth understanding of the development trend of the logistics industry and the actual needs of enterprises and has conducted a comprehensive review and adjustment of the original course system. They introduced new technologies and concepts closely related to intelligent logistics, such as big data analysis, cloud computing, Internet of Things, etc., to ensure that students can master the most cutting-edge knowledge of logistics information technology. At the same time, the college has added a series of practical case studies and real-world operational exercises to enable students to gain practical operational experience and real-world problem-solving skills alongside theoretical learning. This initiative has not only been warmly welcomed by students but has also made graduates more sought-after in the job market, as they are equipped with more practical and comprehensive skills and knowledge to better meet the needs of enterprises. In addition, the college has also established close cooperation with a number of logistics enterprises, incorporating the actual needs and latest development of enterprises into the teaching of the program, so that students can have a more intuitive and comprehensive understanding of the actual operation and development direction of the logistics industry.

This example fully demonstrates the practical effect and far-reaching impact of reforming the teaching of logistics information technology by updating the content of the curriculum. This can not only improve the quality of teaching and train excellent talents who are more in line with the needs of the industry but also promote the continuous development and innovation of the logistics industry, realizing a win-win situation for both education and the industry.

3.2 Practical teaching

In the context of "smart logistics", strengthening practical teaching is one of the important strategies for the reform of logistics information technology teaching. The core of this strategy is to make students understand and master the practical application of logistics information technology and practical problem-solving methods more intuitively and deeply through practical operations and real cases (Chen Tianwen, 2022). Strengthening practical teaching not only helps to improve students' practical operation ability and innovation ability but also helps to cultivate students' teamwork spirit and problem-solving ability, which better meets the logistics industry's demand for practical operation ability and comprehensive quality.

Taking a logistics university as an example, the university has introduced a large number of real cases and practical operation links in logistics information technology courses. College and a number of well-known logistics enterprises provide students with a wealth of practical opportunities for internships, students can be directly involved in the actual operation of logistics enterprises, an in-depth understanding of the operation of the logistics information system process and management mode. Through personal participation, students can not only combine the theoretical knowledge they have learned with practical operation, but also find and solve problems, and further deepen their understanding of logistics information technology. At the same time, the university also organized a series of practical project activities where students were required to work in teams to solve practical logistics problems, which not only exercised their teamwork skills but also improved their practical problem-solving abilities. These initiatives have greatly enriched students' practical experience and made them more adaptable to the actual needs and challenges of the logistics industry in the future.

The practical teaching case of this university highlights the important position and positive role of practical teaching in the reform of logistics information technology teaching. Through practical teaching, students can master logistics information technology in a more comprehensive and in-depth manner and become more adaptable to the development of the industry and social needs, which will undoubtedly provide a strong guarantee of talent for the future development of the logistics industry.

3.3 Provision of professional training and development opportunities

In the strategy of logistics information technology teaching reform in the context of smart logistics, providing

professional training and development opportunities has become an urgent and important need. This is not only related to the overall development of students and the integrity of subject knowledge but also involves the updating of teachers' teaching concepts and the enhancement of their teaching abilities (Ji Qiu & Li Weizhuo, 2022). This provision of professional training and development opportunities builds an all-encompassing teaching ecology that aims to respond to the development needs of the logistics industry in the future. For students, professional training can enable them to more comprehensively master the theoretical and practical knowledge of logistics information technology and to more intuitively understand the dynamics of industry development and future trends. For teachers, it can help them better understand new teaching methods and technologies and improve teaching effectiveness and student satisfaction. Such complementary training and development opportunities are an important guarantee for achieving teaching objectives and improving teaching quality.

As an example, a university committed to the reform of logistics IT teaching and learning has been actively engaged in a series of professional training and development programs for students and teachers. Through participation in these programs, students are able to gain an in-depth understanding of the latest knowledge and practical experience in a number of important areas such as logistics information systems, big data analysis, and supply chain management. At the same time, faculty members have been able to enhance their teaching and research capabilities in the field of logistics information technology through participation in various seminars, workshops, and training programs. In addition, the school has established close partnerships with several leading logistics companies and research institutes, providing students and faculty with abundant practical and research opportunities.

The approach of this university enables students and teachers to learn from each other, promote each other, and grow together in an open and innovative learning environment. Students are better able to apply their theoretical knowledge in practice and become professionals with practical skills and innovative thinking; while teachers are able to continuously improve their teaching and research capabilities through continuous learning and practice. This is not only conducive to improving the quality of education and meeting the needs of society but also cultivates a large number of excellent talents for the development and innovation of logistics information technology.

4. Conclusion

In this era of rapid change and rapid development of science and technology, "intelligent logistics" has become the new normal of the logistics industry, which puts forward new and higher requirements for the teaching of logistics information technology. For this reason, educators must grasp the pulse of the industry in a timely manner, and deepen the teaching reform to meet the diversified needs of society and the industry. We need more flexible and varied teaching methods, more comprehensive and in-depth practice opportunities, more systematic and perfect curriculum content, and more professional and sophisticated teaching staff. We expect that through our unremitting efforts and continuous exploration, the teaching of logistics information technology can reach a new level, contributing our wisdom and strength to the cultivation of logistics talents with international competitiveness, and to the promotion of the sustainable development of the logistics industry and the enhancement of global competitiveness.

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