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Opportunities and Challenges of Digital Reform in International Economics and Trade Major

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Abstract: In the current context of rapid technological evolution, this paper sets out with a focused intention to thoroughly explore the opportunities and challenges that the digital reform of the International Economics and Trade major is confronted with. As digital technology surges forward at an astonishing pace, this major has stepped into a crucial transformation phase. Digitalization injects new vitality into the major, offering prospects like innovative teaching models, enhanced practical skills development, and a broader global perspective. However, it simultaneously brings about formidable challenges. These challenges manifest in areas such as the urgent need for curriculum system updates to keep up with the digital trend, the arduous task of teaching staff construction to ensure they can teach digital - related knowledge effectively, and the complex issues of data security and ethics in the digital environment. By conducting an in - depth analysis of these aspects, this paper puts forward corresponding countermeasures, aiming to facilitate the sustainable development of the International Economics and Trade major in the digital age.

1. Introduction

International Economics and Trade is a discipline with a wide range of coverage and strong practicality. In the context of global economic integration, its importance is increasingly prominent. However, in recent years, the digital wave has surged, profoundly changing the global economic landscape and business operation models, and putting forward new requirements and challenges for the education and development of the International Economics and Trade major. Digital reform is not only an inevitable trend to adapt to the development of the times but also a key measure to enhance the professional competitiveness and cultivate talents that meet the needs of the new era. This paper will deeply analyze the opportunities and challenges in the process of digital reform of the International Economics and Trade major and put forward corresponding countermeasures and suggestions, in order to provide useful references for the development of this major.

2. Opportunities of Digital Reform in International Economics and Trade Major

2.1 Innovation in Teaching Models

2.1.1 The Rise of Online Education Platforms

The development of digital technology has promoted the vigorous development of online education platforms, providing rich and diverse resources and flexible and convenient learning methods for the teaching of the International Economics and Trade major. Students can access high-quality courses from top universities at home and abroad anytime and anywhere through platforms such as Massive Open Online Courses (MOOCs) and online open courses, breaking the limitations of time and space. For example, on platforms such as Coursera and edX, there are many courses related to international trade, international finance, cross-border e-commerce, etc. These courses are taught by well-known scholars, covering cutting-edge theories and practical cases. Students can independently choose to study according to their own interests and needs, broadening their knowledge and vision.

2.1.2 Application of Virtual Reality (VR) and Augmented Reality (AR) Technologies

VR and AR technologies have brought revolutionary changes to the practical teaching of the International Economics and Trade major. Students can use VR technology to simulate international trade negotiation scenarios, cross-border logistics processes, international business etiquette, etc., immersively experiencing the real business operation environment and improving their practical ability and adaptability. [1].AR technology can combine virtual information with the real scene. For example, in the classroom, by scanning international trade documents with a mobile phone or tablet, relevant detailed explanations and operation processes can be displayed, enhancing the fun and interactivity of learning.

2.2 Improvement in Practical Abilities

2.2.1 Big Data Analysis and Market Insight

In the digital era, massive data has become an important basis for enterprise decision-making. Students majoring in International Economics and Trade can better collect, organize, and analyze international trade data, such as import and export trade volumes, commodity price trends, and changes in market demand, by learning big data analysis tools and methods, so as to accurately grasp market dynamics and provide strong support for enterprises in formulating marketing strategies and expanding international markets. For example, by using data analysis software to analyze the consumer purchasing behavior in a certain country or region, enterprises can adjust the product structure and promotion strategies in a targeted manner to improve market competitiveness.

2.2.2 Cross-border E-commerce Practice Platforms

The rapid development of cross-border e-commerce provides a broad practical stage for students majoring in International Economics and Trade. Many colleges and universities have cooperated with e-commerce enterprises to build cross-border e-commerce practice platforms. Students can open virtual stores on the platforms, carry out the whole process of operations such as product listing, marketing promotion, order processing, and logistics distribution, personally experience the operation mode and business process of cross-border e-commerce, accumulate practical operation experience, and cultivate innovation and entrepreneurship abilities. At the same time, by conducting

transactions with real overseas buyers, students can also improve their foreign language communication skills and cross-cultural communication skills.

2.3 Expansion of Global Vision

2.3.1 Remote International Exchange and Cooperation

Digital technology has broken geographical restrictions, enabling students majoring in International Economics and Trade to communicate and cooperate with foreign universities, enterprises, and experts more conveniently.[2]Through video conferences, online seminars, and other forms, students can participate in international academic exchange activities, understand the latest international research trends and industry development trends; they can also carry out project cooperation with foreign enterprises, such as market research and product promotion, to broaden their international vision and enhance their international competitiveness.[3]For example, some colleges and universities organize students to participate in transnational virtual business competitions with foreign universities. Students cooperate with teams from different countries in the competitions to jointly solve practical problems in international trade, improving their teamwork ability and global vision.

2.3.2 Digital Media and Information Dissemination

The popularity of the Internet and social media has made information dissemination more rapid and extensive. Students majoring in International Economics and Trade can obtain economic and trade information, policy and regulation changes, and industry dynamics from all over the world in real time through digital media. At the same time, students can also use digital media platforms to showcase their professional abilities and research results, communicate and interact with global peers, and enhance their international influence. For example, students can share their views and analyses on a certain trade event in professional international trade forums and social media groups, and discuss with domestic and foreign experts and practitioners to broaden their thinking and vision.

3. Challenges Faced by Digital Reform in International Economics and Trade Major

3.1 Lag in Curriculum System Update

3.1.1 Insufficient Interdisciplinary Integration

The International Economics and Trade major involves multiple disciplines such as economics, management, law, and foreign languages. However, in the current curriculum system, the degree of interdisciplinary integration is insufficient in the context of digitalization.[4]For example, although currently some information technology-related courses are offered, they are often only simple introductions and fail to be deeply integrated with international trade business, resulting in students' difficulty in effectively applying digital technology to actual business. There is a lack of systematic curriculum settings for the application of emerging technologies such as data science, artificial intelligence, and blockchain in the field of international trade, which cannot meet the needs of composite talents in the digital era.

3.1.2 Disconnection between Practical Courses and Digitalization

Most of the existing practical courses still remain in the simulation of traditional international

trade processes, such as document preparation, customs declaration and inspection, etc. The practical teaching content for new business models in the digital context, such as cross-border e-commerce operation, digital trade platform operation, and big data marketing, is relatively scarce.[5] Moreover, the teaching methods and means of practical courses are also relatively outdated, failing to fully utilize digital technology to improve the practical teaching effect, resulting in a large gap between students' practical abilities and the actual needs of enterprises.

3.2 Difficulties in Teaching Staff Construction

3.2.1 Uneven Digital Literacy of Teachers

Some teachers have limited mastery of digital technology and lack the ability and experience to integrate digital tools and methods into teaching. Some older teachers may be slower to accept new digital teaching methods and concepts, while younger teachers may be familiar with new technologies but may have deficiencies in teaching experience and the depth of professional knowledge. This leads to difficulties in forming an effective synergy in the teaching staff during the digital reform process, affecting the teaching quality and reform effect.

3.2.2 Lack of Interdisciplinary Faculty Introduction and Training Mechanisms

Since the digital reform of the International Economics and Trade major requires teaching staff with interdisciplinary knowledge backgrounds, such as teachers who are proficient in both international trade and data science or information technology, currently, colleges and universities lack effective mechanisms and channels in faculty introduction and training.[6]On the one hand, interdisciplinary talents are relatively scarce in the market, making it difficult to introduce them; on the other hand, the interdisciplinary training for existing teachers is not systematic and in-depth enough, making it difficult to quickly improve teachers' interdisciplinary teaching abilities.

3.3 Emergence of Data Security and Ethical Issues

3.3.1 Data Security Risks

In the process of digital teaching and practice, a large amount of student information, enterprise data, and data related to international trade are collected, stored, and transmitted. However, there are many loopholes in data security management in colleges and universities at present, such as insufficient network security protection measures and imperfect data backup and recovery mechanisms, which are prone to data leakage, loss, or tampering, causing serious losses and risks to students and enterprises. For example, if the transaction data of students on the cross-border e-commerce practice platform is leaked, it may affect the personal privacy of students and the trade secrets of enterprises.

3.3.2 Data Ethical Dilemmas

With the application of big data technology, how to ensure the legal and compliant use of data and protect the rights and interests of data subjects has become an important ethical issue. In the teaching and practice of the International Economics and Trade major, students may come into contact with various sources of data, such as consumer behavior data and enterprise financial data, but they may lack a correct understanding and standardized operation of data ethics, and are prone to problems such as data abuse and privacy infringement.[7] In addition, there are differences in data protection regulations and ethical standards in different countries and regions in international trade,

which also brings certain difficulties to professional teaching and practice.

4. Strategies to Address the Challenges of Digital Reform in International Economics and Trade Major

4.1 Optimizing the Curriculum System

4.1.1 Strengthening the Construction of Interdisciplinary Integration Courses

Universities should integrate resources from multiple disciplines such as economics, management, law, and information technology, and they should offer interdisciplinary integration courses. For example, they could design courses like "Big Data Analysis and Application in International Trade" to combine international trade theory with big data technology, thereby cultivating students' ability to analyze real-world trade issues through data-driven approaches. Similarly, they might introduce "Blockchain Technology and International Trade Settlement" to demonstrate how blockchain applies to cross-border payments and letters of credit, expanding students' understanding of emerging technologies. Additionally, universities should encourage faculty to engage in interdisciplinary teaching research, develop innovative case studies and teaching materials, and continuously update course content to align with industry advancements.

4.1.2 Updating the Content and Teaching Methods of Practical Courses

Universities should increase the practical teaching content in the digital context, incorporating modules such as cross-border e-commerce platform operation, digital marketing planning, and intelligent risk control in international trade. They could introduce virtual simulation experiment software to replicate real-world digital trade scenarios, thus enabling students to practice operational skills and decision-making in a simulated environment. Additionally, universities should strengthen partnerships with enterprises to establish off-campus practical training bases, thereby providing students with internship opportunities and hands-on projects that enhance their digital competencies in authentic workplace settings.

4.2 Strengthening the Construction of the Teaching Staff

4.2.1 Enhancing Teachers' Digital Literacy

Universities should organize faculty to participate in digital teaching training and workshops by inviting experts, scholars, and industry professionals to deliver lectures and provide hands-on guidance, thereby equipping teachers with skills in utilizing online teaching platforms, developing multimedia resources, and applying big data analysis tools.[8] They could further encourage faculty to conduct research on digital teaching reforms through dedicated funding programs and incentive mechanisms, enabling educators to innovate pedagogical models—such as AI-driven personalized learning or gamified interactive modules—with the goal of enhancing teaching effectiveness.

4.2.2 Establishing Interdisciplinary Faculty Introduction and Training Mechanisms

Universities should broaden faculty recruitment channels by actively recruiting interdisciplinary talents—particularly experts in fields like international trade and information technology—and they must formulate targeted policies (e.g., competitive compensation packages or flexible tenure-track positions) to attract such professionals. Additionally, universities should establish interdisciplinary faculty development programs, selecting outstanding teachers for further study at leading

institutions or industry partners globally,[9] thereby enriching their expertise in emerging domains like AI-driven trade analytics or blockchain applications. Furthermore, universities ought to incentivize cross-disciplinary collaboration through joint research grants and team-teaching initiatives, fostering synergy among faculty from diverse backgrounds (e.g., economics, data science, legal studies) to collectively advance the digital transformation of academic programs.

4.3 Strengthening Data Security and Ethical Education

4.3.1 Improving the Data Security Management System

Colleges and universities should strengthen the construction of network security infrastructure, equip advanced security equipment such as firewalls and intrusion detection systems, and regularly conduct security inspections and vulnerability repairs on the network system. Universities must establish a comprehensive data security management system by standardizing procedures for data collection, storage, usage, and sharing, while clearly defining responsibilities for departments and staff through protocols such as role-based access controls and audit trails. [10] They should also strengthen data security awareness training for both faculty and students—for instance, organizing workshops on encryption tools or phishing attack simulations—to enhance their ability to identify and mitigate risks, thereby ensuring the integrity of data throughout digital teaching and practical activities.

4.3.2 Strengthening Data Ethical Education

Universities should integrate data ethics into the International Economics and Trade curriculum by launching mandatory or elective courses—such as Data Ethics and Law (examining legal frameworks and ethical dilemmas in cross-border data flows) and Data Privacy Protection in International Trade (focusing on GDPR compliance and supply chain data governance)—to equip students with foundational ethical principles and cultivate their responsibility in data handling. They must also embed ethical compliance into practical training, guiding students to anonymize datasets, obtain informed consent, and avoid biases in algorithmic models, thereby minimizing risks of data misuse or privacy breaches. Furthermore, universities should collaborate with industry associations and tech enterprises (e.g., e-commerce platforms or fintech firms) to co-develop actionable ethical guidelines and certification standards, ensuring academic training aligns with real-world digital trade practices.

5. Conclusion

The digital reform of the International Economics and Trade major is not merely a response to technological advancements but an essential transformation to meet the demands of the evolving global economic landscape. The opportunities presented, such as innovative teaching models, enhanced practical capabilities, and expanded global perspectives, have the potential to revolutionize the way students learn and engage with international trade concepts.

However, challenges like the lag in curriculum updates, difficulties in building a competent teaching staff, and the emergence of data - related issues cannot be overlooked. These obstacles, if not addressed, could hinder the full realization of the digital reform's potential.

To overcome these challenges, a series of well - thought - out strategies have been proposed. Optimizing the curriculum system to better integrate digital and interdisciplinary knowledge, strengthening the construction of the teaching staff through continuous training and recruitment of interdisciplinary talents, and enhancing data security and ethical education are all crucial steps.

In conclusion, by seizing the opportunities and effectively tackling the challenges through the proposed strategies, the International Economics and Trade major can successfully adapt to the digital era. This will not only improve the quality of education but also cultivate a new generation of professionals equipped with the skills and knowledge necessary to thrive in the digital - driven international trade environment.

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