Academic Education Publishing House

Higher Education and Practice Vol. 3 No. 3, 2026

AI-Empowered Volunteer Services: Practical Innovation of College Students' Intelligent Support for Shaoxing Textile City

Ziyu Meng, Yuhong Zhang, Long Wang
Zhejiang Yuexiu University, Shaoxing, Zhejiang, China

Abstract: With the all-round development of digital China and culture tourism and commerce, traditional volunteer services in professional markets face challenges such as low management efficiency, inaccurate resource matching, insufficient international services, and weak incentive mechanisms. Shaoxing China Textile City serves as the research area, and this study develops an integrated model of "AI+volunteer service+international business service" based on the strengths of Business English majors and the nature of college students' volunteer services. Develop the four functional modules of intelligent matching, multilingual translation, service hour certification and resource scheduling to build an intelligent volunteer service platform for college students. the problems of language barriers in foreign exchange, unbalanced distribution of volunteer manpower and fragmented service experience in Textile City have been addressed by the platform. This study establishes an achievable and promote-worthy AI-empowered volunteer service model. Improve the international service level and urban governance of Shaoxing Textile City, and offer a practical case study for applied talent training and industry-university-research collaborative innovation in universities.

Keywords: AI Empowerment; College Students' Volunteer Service; Shaoxing Textile City; International Service

1. Introduction

1.1 Research Background

China has continuously promoted the strategy of cultural digitalisation, the youth development plan and smart social construction, and encouraged universities to incorporate artificial intelligence, big data and other technologies into social practice and volunteer services. Zhejiang Yuexiu University of Foreign Languages has had long-term advantages in promoting innovative "AI+volunteer service" practices and has leveraged its provincial featured major of Business English, off-campus practical education base in Textile City, and rich multilingual resources. Therefore, this study puts forward the idea of college students' "intelligent support" to address practical problems through technological empowerment, and it is highly feasible.

As the largest textile distribution center in the world, Shaoxing China Textile City holds many international exhibitions, foreign merchant procurement activities and cross-border commercial events every year, and thus has an increasing demand for multilingual services, cross-cultural communication and efficient volunteer support. However, traditional volunteer services still use manual scheduling, offline registration and experience-based job assignment, have inaccurate matching, opaque data, insufficient incentives and weak international competence; they can no longer meet the demands for digitalisation, internationalisation and high efficiency of the modern professional market.

1.2 Research Significance

Theoretical Significance: It enriches the applied research of AI technology in the field of volunteer services, optimizes the theoretical framework of collaborative education among universities, markets and society, and provides theoretical references for smart services in professional markets and cross-cultural business volunteer services.

Practical Significance: It improves the efficiency of international business communication and the quality of volunteer services in Shaoxing Textile City; builds a real-scenario practice platform for college students to strengthen their capabilities in language application, technology utilization and social service; forms a replicable model for reference by similar professional markets and exhibition cities.

1.3 Research Content and Methods

1.3.1 Research Content

1. Shaoxing Textile City volunteer service investigation and pain points analysis;
2. Functional framework and technical path of AI-

empowered volunteer services;
3. Design of intelligent platform "Volunteer Help" and development of multilingual translation modules;
4. Construction of practical system and incentive mechanism for college students' intelligent support;
5. Model promotion, effect evaluation and optimization strategies.

1.3.2 Research Methods

• Literature Research Method: Sort out theories and cases related to AI volunteer services, smart markets and cross-cultural services.
• Questionnaire and Interview Method: Conduct demand surveys targeting merchants, foreign merchants, volunteers and management authorities.
• Action Research Method: Carry out pilot practices in Textile City to iteratively optimize platform functions.
• Case Analysis Method: Draw lessons from mature practices such as Hangzhou Volunteer Brain and Yiwu foreign trade terminology system.

2. Relevant Theories and Research Status at Home and Abroad

2.1 Core Concepts

1. AI-empowered Volunteer Service: Using algorithms matching, intelligent recommendation, multilingual models and data certification to improve the accuracy, efficiency and experience of volunteer services.
2. College Students' Intelligent Support: Intellectual volunteer services centered on professional knowledge, technology, language competence and innovation capability, which differ from traditional physical volunteer services.
3. International Service of Professional Market: Comprehensive services for cross-border business including language translation, business guidance, cultural adaptation and process agency.

2.2 Research Status at Home and Abroad

Internationally, VolunteerMatch uses algorithms to realize intelligent matching between volunteers and posts. Public welfare organizations in Britain and the United States use machine learning to predict service demands and optimize resource allocation, and AI is widely used in emergency services and support for special groups. Domestic practices like Hangzhou "Volunteer Brain" and Shenzhen "AI Volunteer" have realized big data scheduling and sign language translation. Professional markets such as Yiwu and Haining have explored intelligent Q&A of foreign trade terminology and multilingual customer service systems. However, existing researches focus more on general scenarios rather than vertical professional markets, technical implementation rather than youth practice, and one-time services rather than long-term mechanisms.

There is still a research gap in AIplus college student volunteer services targeted at the vertical textile industry.

3. Current Situation and Problem Analysis of Volunteer Services in Shaoxing Textile City

3.1 Current Situation

Using the resources of the university, regular volunteer services are organised by Shaoxing Textile City for international exhibitions, market guidance, translation support, order maintenance and merchant reception. Volunteers are mainly college students with language skills; the organisation and management are still manual and lack digitalisation.

3.2 Existing Problems

1. Insufficient application education for volunteers: Poor integration of volunteer services with professional training and limited cultivation of technical application ability.
2. Weak Platform Functions: Information is scattered and resource integration is insufficient; as a result, students face fragmented practical opportunities and there is no multi-party cooperation mechanism.
3. Low management efficiency: Manual job allocation and rough matching lead to human resource waste; service hour recording is done manually with low reliability; a single incentive mechanism is not appealing to volunteers.
4. Lack of international competence: General translation tools have low accuracy for textile professional terminology; cross-cultural service training is lacking; and there is no closed-loop feedback mechanism.

4. Construction of AI-empowered Volunteer Service System in Textile City

4.1 Overall Framework

Platform: Integrated Management WeChat mini-program for college students' intelligent volunteer support.

Four Modules: Intelligent Matching Module, Multilingual Translation Module, Service Hour Certification Module and Incentive & Growth Module.

Scenarios: Exhibition support, market tour guidance, foreign merchant reception, cross-cultural service, terminology translation and resource scheduling.

Accurate targeting and matching, intelligent translation, credible hour certification, a closed-loop incentive mechanism, and international services; thus, this study constructs a system of 1 Platform+4 Modules+N Scenarios.

4.2 Core Function Design

1. Credible Certification Module: Use blockchain and platform encryption to record service hours, automatically issue tamper-proof certificates linked to scholarship evaluation, honour selection and practical course credits.
2. Intelligent Matching Module: Based on the labels of major, language, skills, time and service scenario, the AI algorithm automatically recommends posts for precise person-job matching.
3. Multilingual Translation Module: Build a textile professional terminology database (Chinese-English, Chinese-Arabic, Chinese-Spanish, etc.) for text translation, voice interpretation, terminology Q&A and one-click query of frequently used exhibition expressions.
4. Incentive & Growth Module: Build a long-term incentive system that covers points accumulation, level promotion, practical credits, enterprise internships and honour recognition.

4.3 Technical Route

1. Demand Research and Scheme Design.
2. Pilot Operation and User Testing.
3. Achievement Summary and Model Output.
4. Platform Development and Terminology Database Construction.
5. Comprehensive Promotion and Data Optimisation.

5. Operation Mechanism of College Students' Intelligent Support Platform

5.1 Multi-party Collaboration Mechanism

Universities: Offer teachers, technology, students and training support.

Government and Communist Youth League: Provide policy support, publicize and institutionalize it.

Textile City & Associations: Offer practical cases, data, demands and off-campus practice bases.

Project Team: Conduct platform operation and maintenance, volunteer management, activity organisation and iterative optimisation.

5.2 Practical Education Mechanism

1. Cross-cultural Training: Business etiquette, textile knowledge, spoken foreign language and AI tool application.
2. Volunteer Student Ambassador: Selection, Training, Publicity Organization and Merchant Docking.
3. Practical Credit Certification: Service hours, project accomplishments and competition participation can be regarded as credit for a practical course.

5.3 Sustainable Operation Mechanism

The platform is available to all users and will be operated and maintained by the results of scientific research projects, school-enterprise cooperation and achievement transformation. Build a closed-loop optimisation mechanism for the monthly after-treatment feedback, quarterly evaluation and annual audit.

6. Practical Effects and Value

6.1 Practical Effects

1. Improved Internationalization: Wider coverage of multi-language services, higher accuracy of terminology translation, and enhanced satisfaction for foreign merchants.
2. Optimised Volunteer Experience: Stable service hour records and reasonable rewards increase the participation and retention rates.
3. Improved Service Efficiency: Shorter matching time, faster response and fewer job mismatches.
4. Good educational effects: Improve the language skills, technical abilities, sense of service and innovative thinking of students.

6.2 Social Value

It will promote the digitalisation and internationalisation of Shaoxing Textile City; offer a reference case for improving the quality and efficiency of university volunteer services; and provide a model of "AI+youth volunteer service" for other professional markets and exhibition cities across the country.

7. Deficiencies and Prospects

Further increase data collection; improve the adaptability of the AI model to dialects and complex business negotiation situations; add more market-oriented promotion experience.

IIn the future, access to large model APIs will be upgraded to enhance conversational ability; expand multilingual coverage; connect with university

second classrooms and enterprise internship systems; build standardized solutions for replication and promotion in the textile market and exhibition centers of the Yangtze River Delta.

8. Conclusion

Deeply integrate AI technology with the volunteer work of college students in this study. Based on the service pain points of commercial and trade activities in Shaoxing Textile City, build an intelligent support system with intelligent matching, multilingual support, credible certification and closed-loop incentives. Based on the above research, AI empowerment can be used to enhance the efficiency and internationalization of volunteer services, thereby achieving the dual goals of improving university practical education and supporting local social governance. It has good innovation and promotion prospects, and thus will provide an excellent model for modernising youth volunteer services, internationalizing the professional market, and strengthening university-local cooperation.

Acknowledgements

Zhejiang Provincial College Students' Innovation and Entrepreneurship Training Program Project, Zhejiang Yuexiu University of Foreign Languages (AI-Empowered Volunteer Services: Practical Innovation of College Students' Intelligent Support for Shaoxing Textile City, No.: S202512792030)

References

[1] Calvino, F., & Fontanelli, L. (2026). AI users are not all alike: the characteristics of French firms buying and developing AI. Research Policy, 55, 105473.

[2] Fan, H., et al. (2026). How moral judgment incongruence affects employee job crafting: the moderating roles of AI-generated ads' verisimilitude and creativity. Tourism Management, 113, 105333.

[3] Huang, G. Q. I., et al. (2026). Responsible AI and human collaboration in tourism management: Ethical considerations and identity disclosure. Tourism Management, 113, 105315.

[4] Jain, R., & Kumar, A. (2025). From what (motives) to what (outcomes) of relationships with artificially intelligent voice assistants. International Journal of Information Management, 85, 102953.

[5] Lasarov, W., et al. (2026). How practitioners can leverage GenAI to bridge the research-practice gap. Tourism Management, 113, 105309.

[6] Xu, X., et al. (2026). Empathy order effects on shaping GenAI online complaint management in tourism. Tourism Management, 113, 105304.

[7] Yhee, Y., & Koo, C. (2026). Seeing AI as human or machine? Effects of transparency, valence, and readability on review summary helpfulness. Tourism Management, 113, 105305.

[8] Zhai, X., et al. (2021). A review of artificial intelligence (AI) in education from 2010 to 2020. Complexity, 2021(1), 8812542.