https://doi.org/10.37420/j.cer.2025.025

Research on the construction of tourism management curriculum system in local application-oriented universities under the background of digital economy

Xiaoxiao Yi, Yao Luo*
Guangxi Minzu Normal University ,Chongzuo,China
***Corresponding author, E-mail: 275167900@qq.com**

Abstract:
In recent years, under the background of the deep integration of digital economy and real economy, the digital transformation of tourism industry has spawned new business forms such as smart tourism and digital cultural tourism. However, the curriculum system of tourism management major in local application-oriented universities is facing multiple challenges. It includes that the curriculum content lags behind the development of digital technology, the teaching mode is limited by the teacher-centered tradition, the practical teaching is out of touch with the industry, and the local curriculum development is inefficient. In this regard, this study proposes a ' four-dimensional reconstruction path '. It includes the reconstruction path of breaking through ' lag ', strengthening the reconstruction path of ' practicality ', innovating the reconstruction path of ' teacher centralization ', and cracking the reconstruction path of ' delocalization '. The research shows that systematic reconstruction can help colleges and universities cultivate compound talents with digital thinking, technology application and local cultural tourism insight, and promote the upgrading of tourism industry and the implementation of national digital economy strategy.

Keywords:
Digital economy background ; construction of curriculum system ; local applied undergraduate tourism management major

1 Introductory

The report of the 20 th National Congress of the Communist Party of China clearly stated that it is necessary to accelerate the construction of the digital economy system, deepen the integration of digital technology and the real economy, and inject new momentum into the high-quality development of the national economy. With the comprehensive popularization and iterative upgrading of Internet technology, digital economy has become the core force driving global economic growth, and plays a key role in optimizing industrial structure and improving economic efficiency. In this context, tourism, as one of the pillar industries of the national economy, is undergoing systematic changes driven by digitalization. Digital technology not only reconstructs the operation logic of the tourism industry chain, but also gives birth to the innovation opportunities and transformation challenges of the industry management model. Relying on the new generation of information technology such as big data, cloud computing and artificial intelligence, the

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

digital economy has realized the cross-platform integration and collaborative sharing of tourism information resources, and promoted the efficient linkage of all links in the tourism value chain. The application of intelligent technology enables tourism enterprises to optimize resource allocation, improve operational efficiency, and promote cross-industry collaborative innovation with the help of the open sharing mechanism of data elements. This kind of technological innovation not only accelerates the digital transformation process of tourism, but also derives new formats such as intelligent scenic spot management, online tourism ecosystem and personalized service customization, which significantly improves the service quality and market response ability of the industry.

However, it is worth noting that there are still significant shortcomings in the current education system of tourism management major in local application-oriented undergraduate colleges : the disconnection between curriculum content and the frontier of digital technology, the solidification of teaching methods, the lag of practice platform construction, and the lack of dynamic tracking of the industry. It is difficult to meet the needs of digital talents in the era of digital economy. Therefore, local colleges and universities urgently need to build a two-wheel drive curriculum system of " digital technology + industry practice " based on the positioning of digital talent training. By strengthening practical teaching, school-enterprise collaborative project development, digital skill certification and other measures, they can systematically cultivate tourism management talents with data thinking, innovation ability and practical skills, and provide intellectual support and talent guarantee for the digital transformation of the industry.

2 The necessity of curriculum reconstruction of tourism management major in local application-oriented universities

2.1 The traction of digital technology to drive the transformation of tourism industry

The deep integration of digital economy and tourism industry is reshaping the industry ecology. The traditional tourism management mode is facing disruptive innovation, which forces the reconstruction of the curriculum system of applied undergraduate tourism management specialty. First, technologies such as artificial intelligence, virtual reality, and blockchain have spawned new formats such as smart scenic spots, immersive tourism experiences, and digital cultural tourism IP. It requires the course content to be deeply integrated into modules such as ' smart tourism system design ' and ' digital cultural tourism product development ', and strengthens students ' application ability of cutting-edge technologies such as tourism digital twins and AR / VR scene construction. Secondly, big data technology has become a core tool for tourism market demand forecasting, tourist behavior analysis, and dynamic pricing decision-making. The curriculum system urgently needs to add courses such as " Tourism Big Data Mining " Digital Marketing Strategy, and cultivate students ' practical skills in data cleaning, modeling, and visual presentation using tools such as Python and Tableau. Thirdly, the digital economy has broken the boundary of the traditional tourism industry chain and promoted the cross-border integration of " tourism + culture " and " tourism + health care. " The curriculum design needs to strengthen the interdisciplinary integration ability. For example, through the course of " Digital Innovation of Cultural Tourism Industry, " students are guided to master the solutions of resource integration, platform operation and multi-agent collaboration.

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

2.2 Lag and adaptation crisis of traditional curriculum system

The existing tourism management professional courses are difficult to match the dynamic needs of the digital economy in terms of teaching content, methods and evaluation dimensions. On the one hand, the existing courses still focus on the development of traditional tourism resources and the management of travel agencies, and the coverage of emerging fields such as digital marketing technology (such as social media fission propagation), intelligent customer service system (such as the application of ChatGPT in tourism consulting), and blockchain tourism traceability is insufficient, resulting in the disconnection between students ' knowledge structure and industry technology. On the other hand, the traditional classroom is mainly based on theoretical teaching, lacking immersive teaching scenarios such as " virtual simulation experiment " and " digital tourism project actual combat, " which is difficult to cultivate students ' ability to solve complex problems in digital scenes. In addition, the existing assessment focuses on standardized testing, ignoring the diversified evaluation of students ' digital tool operation ability (such as OTA platform operation) and innovative design ability (such as meta-universe tourism product planning). It is urgent to build a composite evaluation system of ' process assessment + project results + industry certification '.

2.3 The urgency of cultivating compound digital tourism talents

The demand for tourism talents in the digital economy has shifted from a single service skill to a compound ability of " technology application + industry insight + innovative thinking. " First, according to the ' China Cultural Tourism Digital Development Report (2023) ', the digital tourism talent gap is very large, especially in tourism data analysts, digital content planners and other positions showing a ' supply vacuum '. Secondly, tourism enterprises rely on digital technology to optimize resource allocation and improve service efficiency, and require courses to strengthen the cultivation of " technology + management " dual ability. For example, through school-enterprise cooperation, the training project of " digital operation of tourism enterprises " is developed to simulate real scenes such as hotel revenue management and scenic spot passenger flow warning. Thirdly, the digital economy accelerates the cycle of tourism career change, and the curriculum system needs to be embedded in the growth path of " digital literacy general education + advanced training of technical tools + incubation of innovative projects, " such as setting up " digital entrepreneurship practice " courses to enable students to adapt to the rapid changes of future career ecology.

3 The problems existing in the teaching of tourism management courses in local application-oriented universities under the background of digital economy

3.1 Insufficient dynamic adaptation mechanism of course content : lag is out of touch with industry demand

Under the background of the rapid development of digital economy, there is a significant lag in the curriculum content updating mechanism of tourism management major in local application-oriented undergraduate colleges, which is difficult to meet the industry 's demand for digital talents. In particular, in some emerging fields, such as digital marketing technology, intelligent scenic spot operation and blockchain technology application, the content of the course is lagging behind and fails to incorporate cutting-edge

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

knowledge and technology in time. The industry 's demand for skills is constantly changing. However, the pace of curriculum renewal often fails to keep up, resulting in the outdated content of students in the rapidly developing field, thus affecting their employment competitiveness. How to ensure the close connection between curriculum content and industry needs through a more flexible and efficient dynamic adaptation mechanism has become a major problem in current curriculum reconstruction.

3.2 The dilemma of teaching mode transformation : the imbalance between teacher centralization and the application of digital tools

Generally speaking, local application-oriented undergraduate colleges and universities have begun to consciously implement the student-centered ' teaching-learning-doing ' integrated teaching model, but unfortunately, the traditional teacher-centered teaching method is still dominant, which limits students ' autonomous learning and personalized development. Although local application-oriented universities have proposed a hierarchical classification training model based on students ' career planning, in practice, students ' choice of learning paths is still limited by teachers ' arrangements and fails to give full play to students ' subjective initiative. In addition, although local application-oriented universities try to introduce digital teaching tools, in practical application, the use of digital tools is not closely related to the course content and teaching objectives. As a result, the potential of these tools has not been maximized into students ' learning outcomes, forming an imbalance between ' tool application ' and ' teaching objectives '.

3.3 The weak practical teaching system : the poor connection between situational and progressive projects

Local application-oriented undergraduate colleges and universities have begun to try to design situational teaching and practical projects, but there is still a disconnection between contextualization and actual needs in the implementation of these projects. Specifically, although there are school-enterprise cooperation projects, the design of some practical contents lacks accurate docking with the needs of local cultural tourism industry, which makes it difficult for students in the project to obtain practical experience closely related to the actual needs of the industry. For example, although projects such as intelligent transformation of rural tourism and digital marketing planning of cultural tourism are practical, the technical difficulties and operational content involved are not fully connected with the actual needs of enterprises, which leads to students ' inability to fully cultivate skills that match the requirements of the industry when participating in projects.

3.4 Insufficient development of localized characteristic courses : inefficient operation of regional resource transformation and coordination platform

Although local application-oriented universities have tried to combine local characteristic resources in the curriculum system, how to effectively develop and use the digital transformation of local cultural and tourism resources still faces difficulties. In the process of transforming local festivals, cultural heritage and other resources into teaching cases, its digital potential has not been fully explored. The transformation of local resources requires not only innovative teaching content, but also the establishment of a cross-sectoral collaborative platform to support this process. It is a pity that the existing relevant collaborative platforms are inefficient and fail to effectively integrate the resources and information between local cultural and tourism bureaus, digital technology enterprises and universities, resulting in the lack of depth and systematicness of the application of regional resources in the curriculum, and the failure to form an effective practice path of

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

industry-university-research integration.

4 The reconstruction path of logistics management professional courses in colleges and universities under the background of digital economy

4.1 Breakthrough the reconstruction path of ' hysteresis '

Tourism management major in local application-oriented universities should take " dynamic adaptation " as the core, reconstruct the curriculum system to cope with the rapid iteration of the demand for talents in the digital economy. First, strengthen the era of curriculum content. Regularly carry out industry demand research, incorporate cutting-edge fields such as intelligent scenic spot operation, digital marketing technology (such as Tik Tok short video platform cultural tourism promotion), blockchain tourism credit investigation into curriculum modules, and add courses such as " digital cultural tourism product design " tourism artificial intelligence application " to ensure that the teaching content is synchronized with national strategic directions such as " global tourism digitization " and " cultural tourism meta-universe. " Second, build a knowledge transformation mechanism for the integration of industry and education. With Ctrip, Tongcheng and other OTA platforms and local cultural tourism groups to build a practice base, the introduction of ' digital tourism project practice workshop ', for example, through real projects, students can participate in the whole process practice from market research, IP design to online promotion, and improve the ability of technology application and industry adaptation. Third, optimize the dynamic feedback mechanism. Establish a ' student-teacher-enterprise ' tripartite linkage curriculum evaluation system, rely on digital teaching platforms (such as Superstar Learning) to collect learning behavior data, and combine industry certification standards (such as smart tourism planner qualification) to adjust the difficulty of the course and the focus of skill training, forming a closed-loop optimization path of ' demand perception-content iteration-effect verification '.

4.2 Innovate the reconstruction path of " teacher centralization "

Guided by students ' career growth, the teaching mode of " teaching-learning-doing " integration is reconstructed. First, the implementation of hierarchical classification training mode. According to the characteristics of local cultural tourism industry (such as national cultural tourism and red tourism digitization), we set up micro-professional directions such as ' digital cultural tourism planning ' and ' smart scenic spot operation ', allowing students to choose their own course portfolio based on interest and career planning, and realize the flexible certification of learning results through the credit bank system. Second, deepen the application of digital teaching tools. The ' digital twin scenic spot management experimental system ' is developed by using virtual simulation technology to simulate complex scenes such as passenger flow warning and emergency disposal. Build a ' tourism big data analysis sandbox platform ' to provide real data sets such as tourist portraits and consumer behavior predictions in scenic spots, and support students to carry out inquiry learning. Third, build a diversified evaluation system. Using the composite evaluation model of ' process assessment (40 %) + project results (30 %) + industry certification (30 %) ', this paper focuses on students ' digital tool operation (such as GIS software), cross-team collaboration (such as online travel live planning) and other capabilities to promote the connection between evaluation standards and job competency requirements.

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

4.3 Strengthen the reconstruction path of ' practicality '

Focusing on the needs of digital transformation of local cultural tourism industry, this paper constructs a practical teaching system of " virtual and real integration, multi-layer progressive. " On the one hand, develop situational practice teaching scenarios. Relying on virtual reality technology to build an " immersive tourism experience design laboratory, " simulate projects such as digital display of intangible cultural heritage and service process optimization of smart hotels, so that students can master the ability of digital service design through role-playing and decision-making. On the other hand, implement the ' three-stage progressive ' practice project : at the basic level, master the OTA operation, tourism public opinion monitoring system and other tool operations through the ' tourism digital tool training ' course ; in the advanced stage, we actively participate in school-enterprise cooperation projects such as ' cultural tourism digital marketing planning ', and complete the whole process practice from demand analysis to program implementation ; in the innovation layer, we actively incubate students ' innovation projects (such as AR navigation applet development), connect local cultural tourism innovation and entrepreneurship competition resources, and promote the transformation of achievements. At the same time, we should establish a ' double tutorial system ', employ the head of the digital department of local cultural tourism enterprises as an industry tutor, and jointly guide students ' graduation thesis design with academic tutors. It is required that the topic selection must be based on the real pain points of local cultural tourism enterprises (such as the optimization of tourism digital navigation system in Taiping Ancient Town, Chongzuo City), so as to ensure the deep integration of theoretical research and practical needs.

4.4 Crack the reconstruction path of 'delocalization '

Based on the endowment of local cultural tourism resources, we will build a ' localization + digitization ' characteristic curriculum group. First, develop a regional cultural tourism digital case library. In-depth excavation of local characteristic resources (such as digital dissemination of ethnic minority festivals, VR reproduction of natural and cultural heritage tourism) is transformed into teaching cases of courses such as " digital innovation of regional tourism. " Through the three-stage teaching of " case discussion-scheme design-prototype development, " students ' innovative thinking of " technology-enabled cultural inheritance " is cultivated. Secondly, build a government-industry-university-research collaboration platform. Jointly build a " cultural tourism digital innovation center " with local cultural tourism bureaus and local digital technology enterprises, undertake horizontal topics such as smart tourism planning and digital protection of cultural heritage, and link course assignments with enterprise projects, such as organizing students to participate in data collection and model construction. Finally, innovate the carrier of localization practice. Combined with local cultural and tourism festivals (such as March 3, Guangxi), the ' Digital Tourism Service Innovation Practice Week ' is designed, which requires students to use live broadcast technology, LBS positioning service and other tools to complete activities promotion, tourist experience optimization and other tasks, so as to realize the multi-dimensional spatial linkage of ' classroom-scenic spot-community '.

5.Conclusion

Under the background of digital economy, the tourism management major of local application-oriented universities is facing practical challenges such as lagging curriculum content, solidified teaching mode,

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

insufficient training of practical ability and lack of local characteristics. Curriculum reconstruction is an inevitable choice to improve teaching efficiency and enhance talent adaptability. Based on the orientation of local application-oriented undergraduate education and the characteristics of tourism management major, this paper puts forward a four-in-one reconstruction path of " dynamic adaptation-model innovation-practice strengthening-localization integration " : through dynamic tracking of the frontier of digital technology, constructing the mechanism of collaborative education between industry and education, deepening the " three-stage progressive " practical teaching, and developing the digital characteristic curriculum group of local cultural tourism, systematically solving the core problems such as curriculum lag, teacher centralization and practice delocalization. Provide high-quality compound talents with theoretical literacy, practical ability and localized vision for the transformation and upgrading of regional tourism industry, and help the high-quality development of digital economy and cultural tourism integration.

Funding

This work was supported by Guangxi Minzu Normal university 2024 School-level Teaching Reform Research Project, project code: JGYB202418; This work was also supported by Guangxi Higher Education Undergraduate Teaching Reform Project General Class A Project, Project code : 2024JGA367 ; This work was also supported by Guangxi Minzu Normal university 2024 School-level Teaching Reform Research Project, Project code : JGYB202419.

References :

[1] Wang Zhimao, Ji Feng. Digital Economy Empowers New Productivity Development : Mechanism Analysis and Spatial Spillover [J / OL].Modern Finance and Economics (Journal of Tianjin University of Finance and Economics), 2025, (03) : 25-46 [2025-02-28].

[2] Jia Yanju, Li Siyu, Li Kezhen, et al. Research on the logic and path of innovative training of digital cultural and tourism talents in colleges and universities from the perspective of new cultural and tourism productivity [J].Journal of Sichuan University of Tourism, 2025, (01) : 92-97.

[3] Yang Qin, Tang Youlin. Research on the training of tourism management professionals in local undergraduate colleges under the background of digital transformation [J].Technology wind, 2024, (29) : 10-12. Research on the digital teaching reform and practice of tourism management specialty based on red cultural resources [J].Tourism Overview, 2024, (18) : 58-60.

[4] Chen Mengyue. Research on the construction of curriculum system of tourism management major in vocational colleges under the background of digital intelligence cultural tourism [J].Tourism and photography, 2024, (14) : 97-99.

© 2025 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)