

Teaching Digital Economy with Ideological-Political Integration: A Pedagogical Study

Liman Shan*

School of Business, Beijing Information Science and Technology University, Beijing 102206, China

**Author to whom correspondence should be addressed.*

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: As a new engine driving high-quality economic development, the digital economy urgently demands interdisciplinary talents proficient in both digital technologies and economic management. Given the current characteristics of digital economy courses and the status of ideological-political education, this study explores the instructional design and practice of the Digital Economy Specialized course. By adopting a combined framework of fixed and dynamic modules, the course highlights core digital economy concepts and key teaching priorities. Through identifying ideological-political elements and designing representative case studies, alongside integrating teaching teams and enhancing practical instruction, the approach effectively improves students' digital literacy and ideological-political awareness. This provides replicable pedagogical references for cultivating digital economy talents in the new era.

Keywords: Digital economy; Curriculum-based ideological and political education; Module teaching; Case study

Online publication: July 31, 2025

1. Introduction

The report of the 20th National Congress of the Communist Party of China proposed to “accelerate the development of the digital economy and promote the deep integration of the digital economy and the real economy.” The digital economy refers to economic activities driven by digital technologies such as the internet, big data, and cloud computing. As a new engine for global economic development, the digital economy is profoundly transforming all aspects of society—not only reshaping traditional modes of production, distribution, exchange, and consumption but also giving rise to new business models and employment opportunities. The current development of the digital economy urgently demands a large number of interdisciplinary talents with a foundational knowledge of both “digital technologies and economic management.” As a critical hub for talent development, universities bear the responsibility of nurturing digital economy professionals who possess both solid expertise and strong ideological-political literacy. This necessitates continuous updates to economics and management curricula to meet the demand for application-oriented innovators in the digital era. Against this backdrop, the Digital Economy Specialized course has emerged, with its instructional design and integration of

ideological-political education holding significant practical relevance.

2. Curriculum design philosophy and current status of ideological-political education

2.1. Necessity of Digital Economy Specialized course

In recent years, significant progress has been made in the development of teaching materials for the digital economy, laying a foundation for introducing digital economy theory into the classroom. However, these materials often struggle to fully meet the demands of undergraduate courses with limited contact hours (typically 32 credit hours). Existing textbooks, primarily structured according to authors' individual interpretations and academic practices, tend to adopt self-designed chapter outlines in an attempt to establish a unified analytical framework. This has resulted in several notable limitations: (1) excessive volume and overly complex content, (2) insufficient theoretical depth with disproportionate emphasis on practical summaries, and (3) overreliance on mathematical derivations in platform economics. Such organizational approaches prove ineffective in stimulating student engagement or highlighting core learning objectives.

Furthermore, as the digital economy rapidly evolves, emerging theoretical paradigms, business models, and innovative practices continue to emerge. Traditional textbooks, with their static knowledge systems, increasingly fail to address students' needs for cutting-edge disciplinary insights, exhibiting noticeable temporal lag and disconnection from contemporary practices—factors that ultimately compromise talent development outcomes.

The Digital Economy Specialized course addresses these challenges by closely aligning with the latest developments in the digital economy. Building on foundational theories, the course dynamically incorporates annual advancements and practical innovations into its framework. By integrating ideological-political elements and analyzing representative cases of China's digital economy development, the course serves dual purposes: enhancing students' ability to apply theoretical knowledge to real-world problem-solving, while fostering national pride and cultivating innovative mindsets. This approach transforms the curriculum into a vital platform for nurturing interdisciplinary talent equipped for the digital era.

2.2. Practical design of Digital Economy Specialized course

As an elective course for undergraduate students in economics and management disciplines, the course adopts a team-teaching approach where faculty members deliver specialized modules according to their research expertise. Content covers technological, applicational, managerial, and case-study dimensions, dynamically updated to reflect annual developments. Rather than prescribing standard textbooks, instructors curate multidisciplinary materials (literature, reports, multimedia) for each module. Post-implementation evaluations demonstrate enhanced knowledge systematization and teaching effectiveness through iterative faculty-student interactions.

In the practice of course design, three teaching philosophies are adhered to. (1) Carefully selected topical modules highlight the characteristics of both classics and cutting-edge knowledge. Unlike the traditional teaching method based on classic textbooks, the teaching philosophy of this course focuses on the development of the digital economy and is carried out in a modular form. It sets fixed modules and several hot-topic modules. Through special topic discussions and case studies, students' understanding of digital economy theory and practice is deepened. The combination of classics and cutting-edge knowledge enables students to have a comprehensive understanding of the digital economy while keeping pace with the times. (2) Integrating

economic and management theories to cultivate new economic analysis thinking. The theory of the digital economy is closely related to the disciplines of economics and management. In the course design, emphasis is placed on integrating relevant theories such as industrial organization theory, innovation economics, institutional economics, technological economics and management, and strategic management. This guides students to use these theories to analyze various phenomena and problems in the digital economy. For example, when exploring the business model innovation of digital enterprises, combining strategic management theory in management helps students cultivate analytical thinking and innovation ability in the new economic environment. (3) Mining Chinese stories to promote the combination of theory and reality. China has achieved remarkable results in the field of the digital economy and has accumulated rich practical experience. The course design fully mines relevant “Chinese stories” to achieve a combination of theoretical knowledge and real cases. Taking the digital transformation of Midea as an example, its successful experience and challenges in the process of digital economy transformation are analyzed. While learning the theory, students can have a deep understanding of the actual application and development of the digital economy in China, enhancing their national pride and sense of responsibility.

2.3. Current status of ideological-political education in Digital Economy Specialized course

Under China’s digitalization strategy, digital economy has become both an economic driver and an educational research priority. A search in CNKI using “digital economy” and “curriculum ideological and political education” as keywords reveals that the existing studies can be mainly divided into three categories. First, some studies, under the guise of the digital economy, integrate it as a background or element into the construction of different professional courses, which is not actually research on digital economy-related courses^[1-3]. Second, with the digital economy as a newly established major, some studies are committed to exploring the construction of course clusters or systems, and put forward optimization suggestions on course opening, syllabus revision, course design, faculty, teaching evaluation, and practical teaching^[4-8]. Third, in terms of Curriculum-based Ideological and Political Education (CIPE) in digital economy courses, Zheng and Luo explored the aspects of teaching content and methods based on the current situation of CIPE teaching^[9]. Yu and Jin focused on the mining of relevant CIPE elements in digital economy courses and their specific implementation paths, and believed that digital economy courses are an ideal platform for integrating CIPE elements^[10].

In the current practice of CIPE teaching in Digital Economy Specialized course, there are mainly three problems. First, the focus of CIPE content is not prominent, and the course knowledge points, case content, and CIPE elements have not formed an organic integration. Second, the existing cases are mostly collected and organized through online materials, with insufficient localization and low quality. Third, due to the students’ relatively shallow theoretical foundation in the digital economy, there is a sense of fear in their course learning. How to integrate CIPE elements into the teaching of Digital Economy Specialized course, summarize typical cases, enhance the vividness of course teaching, cultivate students’ digital economy thinking, and improve their ability to apply theoretical knowledge to solve practical problems have become important issues that need to be urgently addressed in the current course teaching reform.

3. Curriculum module structure and ideological-political integration

3.1. Course module design

The module design of Digital Economy Specialized course aims to select representative topical modules

in the form of topics, based on the core content and development trends in the field of digital economy. It highlights the key points of the course, enabling students to not only grasp the theoretical foundation of digital economy and establish micro and macro perspectives for analyzing related issues, but also pay attention to the development of digital technology and hot topics in digital economy. It helps students to understand the cutting-edge trends of digital economy development, and to be aware of issues such as digital dividends and digital ethics, digital monopoly and algorithm abuse, digital governance and regulation, thereby cultivating students' ability to apply the learned theoretical knowledge to analyze and solve practical problems. The current course content mainly consists of six fixed modules: Overview of Digital Economy Fundamentals, Micro Perspective of Digital Economy, Meso Perspective of Digital Economy, Macro Perspective of Digital Economy, Development of Digital Technology and Its Economic Impact, Digital Ethics and Digital Economy Governance. In addition, according to the cutting-edge and hot issues in the practice of digital economy development, the course dynamically sets up modules such as DeepSeek, 5G, and Smart City.

3.2. Mining ideological-political elements

In Digital Economy Specialized course, we systematically integrate ideological and political education elements by aligning with key teaching points across fixed modules, developing targeted case studies from multiple perspectives (**Table 1**).

Table 1. Key ideological-political elements and case design in Digital Economy Specialized course

Teaching modules	Core concepts	Ideological-political components	Case studies
1	Overview of Digital Economy	Cultivating innovative consciousness and a sense of national identity, guiding students to care about national development.	Discussing the development process of China's Digital Economy, emphasizing the important role of digital technology in High-Quality Economic Development.
2	Technological Development & Economic Impact	Fostering a spirit of technological innovation and enhancing resilient academic exploration.	Analyzing Huawei's case of pooling innovation resources for 5G R&D.
3	Microeconomic Analysis	Emphasizing the impact of data ownership rights and data monopolies on economic and social development.	Analyzing the case of CNKI to explore issues of data property rights definition and market monopolies in the Digital Economy.
4	Mesoeconomic Analysis	Focusing on emerging economic and social development models to enhance awareness and understanding of future employment opportunities.	A case study of Ningbo's collaborative manufacturing platform, Shengyibang, in analyzing digitalized new industrial organizations.
5	Macroeconomic Analysis	Enhancing understanding of great power competition in the new era and inspiring students' passion for national development.	Analyzing the development trends of digital economies across nations through data visualization.
6	Ethics and Governance	Cultivating core socialist values and ethics: justice, integrity, and rule of law.	Analyzing labor rights protection in food delivery platform dispatch systems and corresponding regulatory frameworks.

4. Implementation pathways for ideological-political education

In order to improve teaching quality and enhance the integration effect of ideological and political education into courses, the following three countermeasures are proposed. Based on the course team, the research strengths of each teacher are leveraged to optimize the design of course modules. On the foundation of traditional teaching,

online teaching platforms such as Learning Pass are fully utilized to conduct “online + offline” interactive Q&A sessions and group peer review of assignments. This enables students to master the basic theories and knowledge of the digital economy. Through special topic discussions and case studies, students’ understanding of digital economy theory and practice is deepened, which in turn improves their enthusiasm and ensures the effectiveness of the course teaching.

The “case + situational teaching method” is attempted to be applied. Taking the practice of China’s digital economy as the link, on the basis of mining ideological and political elements in different modules, carefully selected cases are used as teaching materials to simulate real situations. The teaching process is advanced by following the steps of “objective design–case introduction–independent thinking–case discussion–effect evaluation.” Through students’ independent thinking and teacher-student interaction, cases are used to explain theoretical knowledge, and theories are used to analyze phenomena and problems from life and practice. The teaching extends from “abstract theory” to “general social phenomena,” stimulating students’ interest in learning. In addition, questionnaires and in-class and after-class interactive methods are used to collect students’ learning situations, and problems in ideological and political teaching are identified and continuously improved in a timely manner.

Emphasis is placed on practical teaching. Students are organized to participate in activities such as surveys of digital economy enterprises and academic seminars related to the digital economy. At the same time, students are encouraged to organize their research results into cases to improve their ability to apply theory to practice. This also helps to form a unique case library for the course, providing rich materials for future teaching. Moreover, experts from enterprises are invited to give special lectures on the development of the digital economy, enhancing students’ understanding of the digital economy, and enabling them to plan their academic and career development earlier.

Funding

The 2025 Teaching Reform Project of Beijing Information Science and Technology University on Ideological and Political Education in Curriculum “Ideological and Political Education in Digital Economy Specialized Course: Value Implications and Teaching Explorations” (2025JGSZ16)

Disclosure statement

The author declares no conflict of interest.

References

- [1] Sun J, 2024, Teaching Reform Practice and Exploration of Business Data Analysis Courses in the Digital Economy Era. *Foreign Economic Relations & Trade*, (01): 128–131.
- [2] Jiang Y, Liu M, Xu B, 2024, Talent Cultivation in Economics Under the Digital Economy: Value, Challenges, and Pathways. *Journal of Yichun University*, 46(04): 38–42.
- [3] Guo J, Jia L, Tian C, et al., 2024, Instructional Design and Practice of E-Commerce Data Analysis Courses in the Digital Economy Context. *Journal of Beijing Polytechnic College*, 23(01): 77–82.
- [4] Li W, Hou Y, 2023, Core Curriculum System for Digital Economy Majors Based on the New Finance and Economics Concept. *Scientific Consultation*, (01): 43–45.

- [5] Wang X, Shan H, 2023, Research on the Interdisciplinary Curriculum System for Digital Economy in the Context of New Finance and Economics Education Reform. *Journal of Hebei University of Economics and Business (Comprehensive Edition)*, 23(03): 83–89.
- [6] Hong S, 2024, Research on the Construction of Digital Economy Professional Curriculum Systems. *University Education*, (09): 40–44.
- [7] Zhou Y, Zhang R, 2024, Research on the Teaching Evaluation Index System for Digital Economy Courses. *Journal of Harbin Vocational & Technical College*, (04): 10–13 + 40.
- [8] Huang P, 2024, Teaching Reform of Digital Economy Course Clusters from the Perspective of Digital Literacy. *Time-Honored Brand Marketing*, (12): 197–199.
- [9] Zheng F, Luo L, 2024, Exploration of Ideological and Political Education in the “Digital Economy” Curriculum. *Western China Quality Education*, 10(02): 61–64.
- [10] Yu H, Jin J, 2024, Mining Ideological and Political Elements in Digital Economy Courses and Practical Pathways. *Modern Business Trade Industry*, 45(15): 249–251.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.