

Research on the Reform of Accounting Information System Curriculum Evaluation Empowered by AI

Chen Yu, Tang Wen

School of economics and management, Liaoning University of science and technology, Liaoning, China

Abstract: Artificial intelligence technology is profoundly changing the ecology of the accounting industry, and the traditional accounting information system curriculum evaluation system is facing major challenges. This paper analyzes the difficulties of traditional evaluation systems in terms of single evaluation content, outdated evaluation methods, limitations of evaluation subjects and lagging evaluation timeliness, and discusses the opportunities brought by AI technology to curriculum evaluation reform. This paper proposes to construct a new AI-empowered evaluation system from four dimensions: diversification of evaluation content, dynamic evaluation methods, collaboration of evaluation subjects and real-time evaluation feedback, and expounds the specific implementation paths, including the construction of intelligent evaluation platform, teacher training and ethical norms, so as to provide theoretical reference for the curriculum reform of accounting information system.

Keywords: Artificial Intelligence; Accounting Information System; Curriculum Evaluation; Reform; Intelligence

1. Introduction

With the development of artificial intelligence, big data and other technologies, the nature of accounting work has undergone fundamental changes. The demand for traditional accounting positions decreased by 40%, while the demand for compound positions such as financial analysts and cost managers increased by more than 25% year-on-year. This change puts forward new requirements for the training of accounting talents, and the curriculum evaluation system, as a key link in the teaching process, urgently needs to be reformed to meet the needs of the intelligent era. The evaluation of traditional accounting information system

courses mainly relies on final written examinations and standardized practical training, which is difficult to fully reflect students' comprehensive abilities in data analysis, systematic thinking and innovative solutions. With the widespread application of AI technology in the field of accounting, the disconnect between the evaluation system and actual work needs has become increasingly prominent. At the same time, AI technology also provides new opportunities for evaluation reform, which can achieve more accurate and efficient ability evaluation through means such as tracking the whole learning process, intelligent data analysis and virtual simulation evaluation. Based on the background of AI empowerment and the problems existing in the current accounting information system course evaluation, this paper discusses the direction and path of reform to promote the improvement of the quality of accounting talent training.

2. The Current Situation and Dilemma of the Traditional Accounting Information System Curriculum Evaluation System

2.1 The Evaluation Content is One-Sided

The traditional evaluation content focuses too much on theoretical knowledge and simple operation skills, which is seriously out of touch with the needs of intelligent development in the accounting industry. The existing assessment mostly focuses on low-level capabilities such as concept memory and process reproduction, while the evaluation of high-level capabilities such as intelligent financial analysis, system risk identification, and internal control optimization is insufficient. With the processing efficiency of OCR technology reaching 50 times that of manual labor, and the checkout cycle of enterprises shortening from 15 days to 3 working days, the traditional evaluation content has been difficult to adapt to the ability requirements of the intelligent financial

environment.

2.2 Simplify the Evaluation Method

At present, the evaluation mainly adopts the final closed-book examination and the practical training operation of the preset process, which is rigid and inflexible. This evaluation method of "one test paper determines the world" cannot

reflect the efforts and progress of students in the entire learning process. However, the hands-on training mostly uses fixed-process accounting software operation, and students complete tasks step by step, making it difficult to cultivate their ability to solve practical problems in complex and changeable environments.

Table1. Comparison of Traditional Evaluation Models and AI-Enabled Evaluation Models

Evaluation dimensions	Traditional evaluation model	AI-empowered evaluation model
Evaluate the content	Focus on theoretical knowledge and simple operation	Emphasize data analysis, systematic thinking, and innovative solution capabilities
Evaluation method	Mainly written examination and standardized practical training	Process data collection, virtual simulation, and project-driven multiple evaluation
Evaluation subject	Teacher single evaluation	Collaborative evaluation by teachers, students, and multiple subjects of AI systems
Evaluate timeliness	Lag feedback, centralized evaluation at the end of the semester	Real-time monitoring, dynamic feedback, and continuous improvement
Technical application	Limited information technology	AI algorithms, big data analysis, and virtual simulation are fully applied

2.3 Simplification of Evaluation Subjects

Evaluation activities are almost exclusively monopolized by teachers, and students are in a position of passive evaluation. This single-subject evaluation model is prone to subjective bias and cannot cultivate students' metacognitive ability and self-reflection ability. In the AI-enabled teaching environment, intelligent systems can provide objective basis as auxiliary evaluation subjects and provide technical possibilities for the realization of multiple evaluations.

2.4 Evaluation Timeliness Lag

Traditional evaluation has obvious lag, the final exam is held at the end of the semester, the practical training report is submitted after the course, and the teacher's feedback often takes a long time to return, making it difficult for students to adjust their learning strategies in time. This delayed feedback weakens the moderating function of evaluation on teaching, which is not conducive to the continuous improvement of teaching quality.

3. Theoretical Basis and Necessity of AI-Enabled Accounting Information System Curriculum Evaluation Reform

3.1 Theoretical Basis

Adaptive learning theory believes that teaching should be dynamically adjusted according to

students' learning status. AI technology can provide personalized evaluation feedback by analyzing learning process data, making teaching more in line with students' actual needs.

Cognitive diagnostic theory aims to gain a deep understanding of students' cognitive structures and processes. Functions such as learning analysis and cognitive computing in AI technology can realize fine diagnosis of students' cognitive processes and provide teachers with targeted teaching suggestions.

Data-driven educational evaluation theory emphasizes data-based educational evaluation decision-making. AI technology enables the collection, analysis, and visualization of big data in education, providing technical support for data-driven evaluation.

3.2 Necessity

From the perspective of the internal needs of education, the traditional evaluation system is difficult to adapt to the transformation of accounting talent training goals in the intelligent era. The demand for accounting talents has changed from accounting to value creation and decision support, requiring the evaluation system to pay more attention to the cultivation of data thinking, system thinking and innovative thinking. From the perspective of the external environment, national policies and industry trends jointly promote reform. The "Outline of the Plan for Building an

Educational Power (2024-2035)" clearly proposes to "promote artificial intelligence to help educational reform", requiring colleges and universities to innovate teaching models and strengthen the integration of industry and education. From the perspective of technological development, AI technology provides a powerful tool for course evaluation. Natural language processing, machine learning and other technologies make it possible to collect panoramic data of the learning process, in-depth analysis of learning behavior, and intelligent evaluation of learning effects, breaking through the limitations of traditional evaluation.

4. The Core Dimension of Accounting Information System Curriculum Evaluation Reform Empowered by AI

Table 2. Multiple Evaluation Index System of Accounting Information System Courses Empowered by AI

Evaluation dimensions	Specific indicators	Evaluation methodology	AI technology application
Theoretical knowledge	Mastery of the basic concepts and principles of accounting information system	Adaptive testing, concept mapping	Knowledge graph, natural language processing
Technical capabilities	AI tool application and system operation proficiency	Virtual simulation and operational analysis	process data mining, behavior analysis
data analysis	Ability to identify, process, analyze and interpret financial data	Case studies, project reports	Big data analysis, machine learning algorithms
Systems thinking	System analysis, design and optimization capabilities	System design and scheme evaluation	Cognitive computing, expert systems
Innovative solutions	Solving and innovating complex accounting information problems	Project-driven learning	Intelligent reasoning, generative evaluation

4.2 Evaluation Method: Change from Static Examination to Dynamic Assessment

Process evaluation emphasizes the tracking and evaluation of the whole process of students' learning. AI technology can automatically record students' behavior data on the learning platform, such as video viewing time, test scores, discussion board participation, etc., and build a learning portrait through learning analysis technology to evaluate the learning effect in real time. Practical evaluation focuses on the assessment of students' practical operation ability and problem-solving ability. The virtual simulation experiment platform simulates the real working environment of the enterprise accounting information system, records the students' operation path, decision-making logic and final effect, and generates a competency assessment report. Generative

4.1 Evaluation Content: Expand From Single Knowledge to Multiple Abilities

The new evaluation system should increase the assessment of data analysis ability, system thinking ability and innovation and solution ability. Specifically, it includes: data collection and processing capabilities, that is, the ability to use AI tools to obtain financial data from multiple sources, and to clean and integrate them; System analysis and design ability, that is, the ability to analyze and design the requirements of accounting information system in combination with the business process of the enterprise; The ability to apply intelligent tools, that is, the ability to solve practical problems using AI technologies such as RPA financial robots and intelligent reconciliation systems

evaluation focuses on students' performance in completing real-world tasks. AI technology supports project-driven learning, allowing students to carry out inquiry activities around the actual accounting information problems of enterprises, and systematically evaluate their research process, solutions and innovation.

4.3 Evaluation Subject: From Teacher-Led to Multi-Collaborative Evolution

As a new type of evaluation subject, AI systems can give full play to the advantages of objectivity and accuracy. Based on big data and algorithm models, the intelligent evaluation system quantitatively analyzes students' knowledge mastery, skill level and ability development, and provides objective and fair evaluation results. For example, the quality of case analysis reports is automatically evaluated through natural language processing technology;

Analyze students' contribution and collaboration ability in team projects through pattern recognition techniques. Students' participation in the evaluation process as the main body of evaluation is an important way to cultivate metacognitive ability and self-directed learning ability. Through self-assessment, students can reflect on the learning process and outcomes; Through peer assessment, students learn from the strengths of others and improve their critical thinking and communication skills. Enterprise experts as the main body of evaluation can enhance the practicality of evaluation. Through the online evaluation platform, enterprise experts remotely participate in the evaluation of student project results, provide feedback from the industry perspective, and make the evaluation closer to actual work needs.

4.4 Evaluation Timeliness: From Lagging Feedback to Real-Time Intervention

AI technology greatly improves the timeliness of evaluation, transforming evaluation from lagging feedback at the end of the semester to real-time intervention in the learning process. Through learning analytics technology and real-time monitoring systems, teachers can keep abreast of each student's learning progress and knowledge mastery, and provide personalized guidance in a timely manner. Based on student learning behavior data, the intelligent teaching system predicts its learning effect and development trend, and provides early warning to students who may encounter difficulties, so that teachers can intervene in advance. At the same time, the AI system can provide instant evaluation feedback, such as grading and analysis immediately after online practice, to help students adjust their learning strategies in a timely manner.

5. The Implementation Path of Accounting Information System Curriculum Evaluation Reform Empowered by AI

5.1 Build an Integrated Intelligent Evaluation Platform

The intelligent evaluation platform should have four core functions: multimodal data collection capabilities (automatic collection of multimodal data such as video, audio, text, and operation logs); Intelligent analysis capabilities (integrated AI algorithms for in-depth analysis

and mining); Personalized feedback capabilities (generating personalized learning reports and suggestions for improvement); Visualization capabilities (presenting analysis results in visual charts). The platform construction can adopt a phased implementation strategy: the initial function expansion based on the existing learning management system; the introduction of learning analysis tools and virtual simulation platforms in the medium term; In the long term, we will cooperate with enterprises to develop an intelligent evaluation platform for professional accounting information systems.

5.2 Innovate AI-driven Evaluation Method System

For the evaluation of theoretical knowledge, adaptive testing is used instead of traditional written tests. Based on the project response theory, the adaptive test can dynamically adjust the difficulty of the questions according to the students' answers, and accurately measure the knowledge level with fewer questions. For the evaluation of practical ability, the virtual simulation evaluation is applied. Through the highly simulated accounting information system operating environment, the standardization, problem-solving efficiency and quality of students' operations in real tasks are evaluated. For comprehensive competency evaluation, promote project-driven evaluation. Students are allowed to participate in real or simulated accounting information system projects, and the AI system combines teacher evaluation and peer evaluation to comprehensively evaluate knowledge application ability, teamwork ability and innovative thinking ability.

5.3 Strengthen the Construction and Training of Teachers

Carry out systematic AI technology training to familiarize teachers with the functions and usage methods of intelligent teaching platforms, and master the basic concepts and operating procedures of data-driven evaluation. The training content should include learning analysis techniques, evaluation data interpretation, data-based teaching decisions, etc. Establish a teacher learning community to promote experience sharing and collaborative growth. Through teaching and research activities, teaching salons and other forms, exchange experiences and challenges in AI-empowered evaluation, implement the "division

of labor + mutual aid teaching" model, and improve the team's AI application ability. Strengthen school-enterprise cooperation and introduce enterprise experts to participate in course evaluation. Experts from accounting firms and corporate finance departments are hired as part-time teachers to participate in practical teaching and evaluation activities, and teachers are selected to practice in enterprises to understand the application of AI technology in accounting practice.

5.4 Formulate Evaluation Standards and Ethical Norms

Based on accounting industry standards and talent training requirements, formulate detailed ability evaluation standards, covering multiple dimensions such as knowledge, skills, and literacy. According to the characteristics of different evaluation methods, the corresponding scoring rules and rubrics are designed to improve the objectivity and consistency of evaluation. Highly emphasis on data privacy and algorithmic fairness issues. Establish a strict data management and use system, clarify the scope and use of learning data, and protect students' privacy rights. Regularly review the fairness and transparency of evaluation algorithms to avoid unfair evaluations caused by algorithmic bias.

6. Conclusions and Prospects

The reform of accounting information system curriculum evaluation under the empowerment of AI is an inevitable trend in the development of accounting education in the era of digital intelligence. By building a diversified, dynamic, collaborative and timely new evaluation system, the quality of accounting talent training can be effectively improved. It should be noted that AI-enabled evaluation does not completely replace teacher evaluation, but complements each other's advantages through human-machine collaboration. Only by combining teachers' professional judgment, humanistic care and creative thinking with the objectivity, accuracy and efficiency of AI technology can a scientific and comprehensive evaluation system be built. In the future, with the development of

AI technology, accounting information system course evaluation will be more intelligent and personalized. Virtual reality and augmented reality technology will provide a more immersive evaluation experience; learning analysis technology will more accurately predict students' development potential; Blockchain technology can be used to authenticate learning outcomes and improve the credibility of evaluation results. As accounting educators, we should take the initiative to embrace technological change, actively explore the implementation path of AI-enabled evaluation, and contribute to promoting the high-quality development of accounting education and cultivating high-quality accounting talents to adapt to the era of digital intelligence.

Acknowledgments

This paper is supported by 2025 Liaoning Province "14th Five-Year Plan for Education Science" project "Research on the Reform Path of AI-Empowered Undergraduate Education and Teaching Based on the Revitalization and Development Needs of Liaoning" (LKJY202510); 2026 Liaoning University of Science and Technology College Student Innovation and Entrepreneurship Training Program Project "Financial Management Informatization Data Analysis and Practice Based on the Integration of Industry and Finance" Phased Results (Project No. 2.02611E+11)

References

- [1] Wu Rangjun. "Research on Accounting Informatization Teaching Mode", "Accounting Education Research", No. 7, 2022.
- [2] Wang Rong et al. "Exploration of Blended Teaching Design and Practice of Accounting Courses under the Background of Education Informatization", Accounting Education, No. 8, 2020.
- [3] Zhao Qinghua, Niu Yuying. "Exploration on the Optimization of Accounting Information System Curriculum System under OBE", Vocational Education Research, No. 2, 2022.