AI-Enabled Innovation in Vocational Training through Industry-Education Integration: A Dual-Translation Model

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Abstract

The integration of industry and education is an important approach for improving the quality of vocational training. However, a gap often remains between enterprise needs and school-based learning because workplace tasks are difficult to directly transfer into curriculum content. This study explores how artificial intelligence (AI) can support curriculum innovation under industry-education integration. Drawing on an integrative literature review and publicly documented practices, this study proposes a dual-translation model that connects enterprise work tasks with teaching projects. The model includes two processes: translating enterprise information into structured occupational tasks, and transforming these tasks into progressive and assessable learning projects. AI supports information collection, task identification, project design, and learning feedback analysis, while teachers and enterprise experts remain responsible for educational and professional decisions. A financial accounting example based on Xero-enabled business practices is used to illustrate how professional tasks, such as financial reporting analysis and business performance evaluation, can be transformed into practical learning projects through the proposed model. The study argues that the role of AI in vocational training is not to replace teachers or enterprise experts, but to support the translation of professional workplace knowledge into structured learning experiences, improve school-enterprise curriculum development, and reduce the gap between learning and workplace requirements.

Keywords: Industry-Education Integration; Artificial Intelligence; Vocational Training; Curriculum Co-Development; Dual-Translation Model; School-Enterprise Collaboration

1. Introduction

Industry-education integration has become an important direction of vocational education and training reform. However, cooperation between schools and enterprises does not automatically guarantee that workplace knowledge can be effectively transformed into learning content. In practice, some partnerships remain limited to cooperation agreements, equipment sharing, or internship arrangements, while curriculum structures continue to follow traditional disciplinary frameworks. The key challenge is not simply establishing connections between schools and enterprises, but developing a mechanism through which changing workplace requirements can be reconstructed into meaningful learning experiences. Workplace activities and educational activities follow different logics. Enterprise practices are usually organized around production objectives, professional standards, problem solving, and responsibility boundaries, whereas vocational education must organize knowledge and practice into teachable sequences that enable learners to develop transferable competencies. As Griffiths and Guile (2003) argue, effective vocational learning depends on connecting theoretical knowledge with work-process knowledge rather than simply transferring workplace procedures into classrooms. Similarly, boundary-crossing research emphasizes that cooperation between different institutional settings requires shared tools and processes to support knowledge exchange and knowledge reconstruction (Akkerman & Bakker, 2011).

The rapid development of artificial intelligence (AI) provides new possibilities for improving this connection. AI technologies can process large amounts of occupational information, including job descriptions, technical documents, professional records, and training materials, to identify changing competence requirements and support curriculum development. Recent OECD research shows that AI has been increasingly explored in vocational education and training for competence analysis, qualification development, and curriculum alignment, while emphasizing that human expertise and institutional governance remain essential (OECD, 2026). Beyond technical fields, AI-supported digital transformation is also reshaping professional service occupations, including accounting, financial analysis, and business decision support. For example, digital accounting platforms such as Xero provide new environments for processing financial information, analyzing business performance, and supporting professional decision-making. These developments demonstrate that AI-enabled vocational education should not only address technical skills, but also consider how complex professional tasks can be transformed into structured learning experiences.

However, the transformation of workplace knowledge into educational content remains challenging. Enterprise tasks often contain implicit knowledge, contextual judgement, and responsibility boundaries that cannot be directly transferred into classroom activities. Therefore, the value of AI in vocational education does not lie in replacing teachers or automatically generating training materials, but in supporting the interpretation, organization, and transformation of professional knowledge between enterprises and educational institutions. This study focuses on the following question: how can AI support the transformation of enterprise work requirements into vocational learning activities while maintaining the authenticity of workplace knowledge? To address this question, this study proposes a dual-translation model. The first translation converts enterprise information into structured occupational tasks, while the second transforms these tasks into progressive and assessable learning projects. Based on an integrative literature review and analysis of documented practices, this study explains how AI can support information processing, task identification, project design, and learning feedback analysis, while teachers and enterprise professionals retain responsibility for educational and professional decisions. The proposed model provides a framework for improving the alignment between vocational education and evolving workplace demands across different occupational fields.

2. Theoretical foundations and analytical concepts

2.1. Industry-education integration as knowledge connection

Industry-education integration involves more than cooperation agreements or the sharing of educational resources. Its essential purpose is to connect workplace requirements with vocational training processes. Enterprises define competence through production tasks, quality standards, problem handling, and responsibility boundaries, whereas training institutions organize learning around knowledge structures, teaching sequences, and assessment requirements. Effective integration requires a mechanism that can connect these different forms of knowledge. The connective model of learning proposed by Griffiths and Guile (2003) provides a useful perspective for understanding this process. They argue that vocational learning depends on the connection between school knowledge and work-process knowledge rather than the simple transfer of workplace practices into classrooms. Similarly, Billett (2011) emphasizes that vocational competence develops through the interaction between educational environments and workplace participation. Therefore, enterprise experience needs to be reorganized into learning activities that preserve occupational logic while remaining suitable for learners. From this perspective, vocational training cannot be reduced to the transmission of isolated skills. Professional competence involves the relationship between knowledge, tools, working conditions, quality requirements, and decision-making. For example, operating a measuring instrument is different from judging whether measurement results are reliable in a specific production context, just as recording financial data is different from interpreting financial information for business decisions. Training innovation should therefore focus not only on what skills learners acquire, but also on how they understand and respond to workplace situations.

2.2. School-enterprise boundaries and the role of AI

Schools and enterprises represent different professional communities. Schools emphasize knowledge organization, learning progression, and educational assessment, while enterprises focus on production efficiency, quality control, and operational risks. Akkerman and Bakker (2011) describe the interaction between different communities as a process of boundary crossing, in which shared objects and practices help participants exchange and reconstruct knowledge. In vocational training, occupational standards, job descriptions, work records, financial records, and training tasks can serve as boundary objects connecting schools and enterprises. However, these materials are often fragmented and updated at different speeds. AI provides new possibilities for improving this connection by identifying patterns across diverse information sources, comparing workplace requirements with existing training content, and supporting the preparation of training materials. The role of AI in this process should be understood as supportive rather than authoritative. AI can improve information processing efficiency, but decisions regarding training objectives, occupational standards, safety requirements, and assessment criteria still require professional judgement from teachers and enterprise experts. Human participation remains essential to ensure that AI-supported training reflects both educational principles and workplace realities.

2.3.Dual translation model

This study introduces the concept of dual translation to explain the process through which enterprise knowledge enters vocational training. The concept is developed by extending previous discussions on boundary crossing and workplace knowledge transformation. The learning-work gap does not arise simply because schools and enterprises lack communication. More importantly, it emerges during the interpretation and reconstruction of workplace knowledge for educational purposes. Previous studies on vocational learning have emphasized that occupational competence involves not only technical skills but also the integration of knowledge, workplace contexts, and practical judgement (Billett, 2001; Billett, 2011). Therefore, enterprise experience cannot be directly transferred into training programs without appropriate transformation.

The first stage of this translation involves transforming dispersed enterprise information into structured occupational tasks. Workplace knowledge is usually embedded in specific professional contexts, including technical standards, quality requirements, operational conditions, business information, and responses to unexpected problems. Griffiths and Guile (2003) argue that vocational learning requires a connection between conceptual knowledge and work process knowledge rather than a simple transfer of workplace practices into education. Accordingly, enterprise materials such as recruitment information, technical documents, work orders, and quality records need to be interpreted through work objectives, operating conditions, decision requirements, and responsibility boundaries. Without such reconstruction, training content may focus on visible procedures while overlooking the reasoning and judgement required for competent performance. The second stage concerns the transformation of occupational tasks into training projects that can be learned, practiced, and assessed. Authentic workplace activities often involve uncertainty, contextual constraints, and levels of responsibility that cannot be directly reproduced in educational settings. Teachers and enterprise experts therefore need to redesign these tasks according to learners' developmental stages, available resources, safety requirements, and assessment purposes. This process reflects the boundary-crossing perspective of Akkerman and Bakker (2011), which views interaction between different social practices as a process of coordination, reflection, and transformation rather than simple knowledge transfer. Through this process, workplace requirements can be converted into structured learning experiences while preserving essential occupational logic. The overall process of dual translation is illustrated in Figure 1.

AI provides new possibilities for supporting these translation processes. Recent research indicates that AI can assist vocational systems in analyzing labor-market information, identifying skill requirements, and supporting curriculum-related decisions, although effective application requires governance mechanisms and human oversight (OECD, 2026). In this study, AI is treated as an information-processing and coordination tool rather than an autonomous decision maker. Teachers and enterprise experts remain responsible for judging occupational relevance, educational value, and assessment standards. The contribution of AI-enabled industry-education integration therefore depends on whether technology can reduce information loss while maintaining professional judgement throughout curriculum co-development.

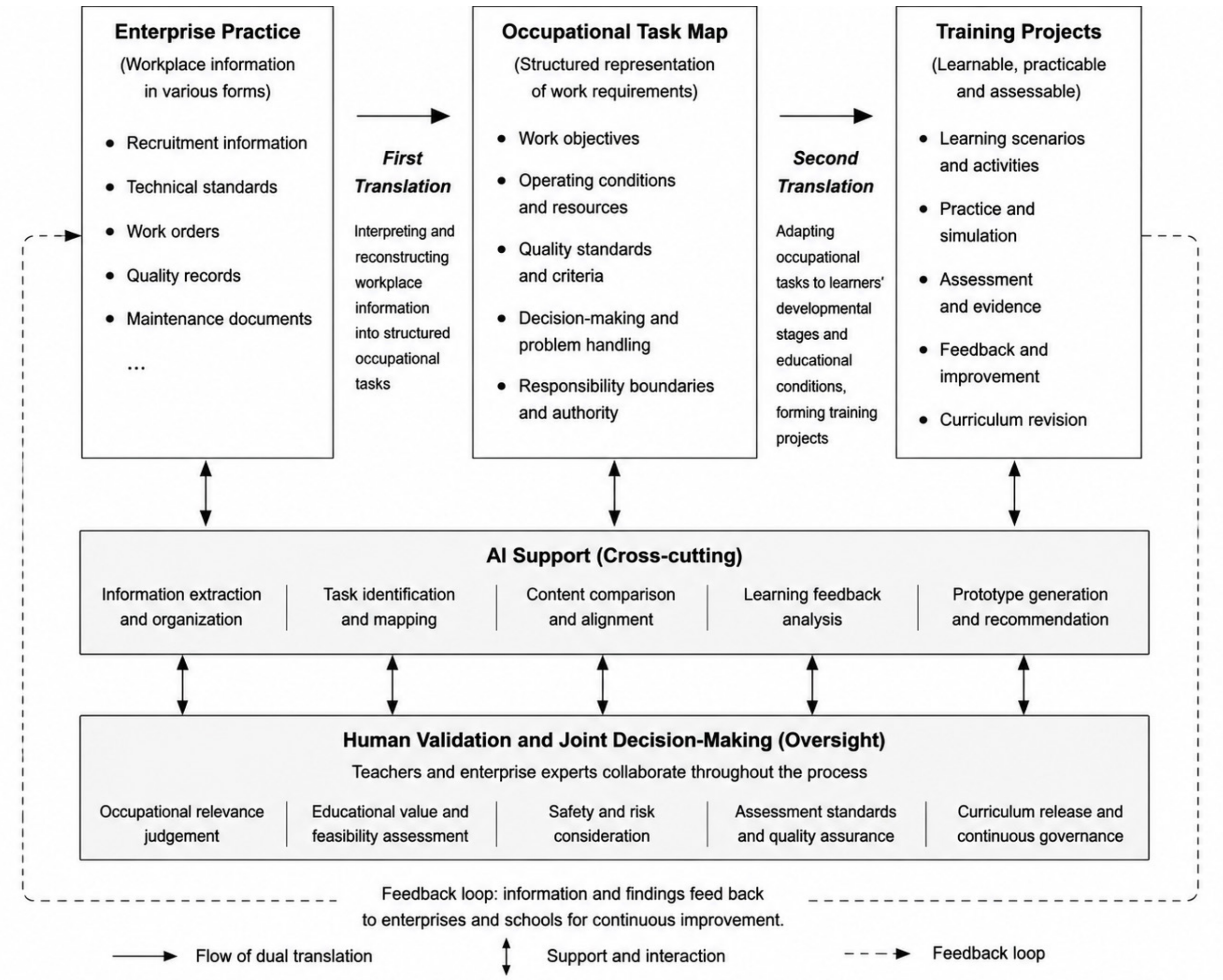

Figure 1. Mechanism of AI-enabled curriculum co-development between schools and enterprises

3. Research design and evidential boundaries

This study adopts a conceptual research design that combines an integrative literature review with an analysis of publicly documented practices. Conceptual studies aim to develop or refine theoretical explanations by organizing existing knowledge and identifying relationships among key concepts (Jaakkola, 2020). The literature review in this study focuses on four related areas: vocational learning and workplace knowledge, boundary crossing between education and work, industry-education integration, and the application of artificial intelligence in skills analysis and curriculum development. The selected literature provides the theoretical basis for explaining how enterprise knowledge is transformed into educational content. In addition to theoretical sources, this study examines publicly documented practices to explore how different components of the proposed model appear in existing vocational systems. The selection follows two principles. First, the practice must have a publicly verifiable source, such as an international organization report, official program documentation, or peer-reviewed research. Second, it must represent a relevant stage of vocational development, including skill-demand identification, curriculum design, or practice-oriented training. Based on these criteria, four illustrative practices are discussed: SkillsCompass in England, SBB Chat in the Netherlands, Learning Factories 4.0 in German technical vocational schools, and the ACENet manufacturing training initiative in the United States.

These practices are not treated as comparative cases or empirical tests of the proposed model. Instead, they serve as contextual evidence for examining whether the main elements of the dual-translation model have practical foundations. Following the logic of mechanism-oriented analysis, the purpose is to identify how existing practices address specific information gaps and which decisions remain dependent on professional judgement (Beach & Pedersen, 2019). Accordingly, the analysis does not evaluate the effectiveness of individual programs but focuses on the functions they demonstrate within the broader process of curriculum co-development. To maintain analytical clarity, this study distinguishes between documented practices and the instructional design example presented later. The Xero-based financial analysis project in Section 6 is not derived from fieldwork in a specific enterprise. Instead, it is a mechanism-based design developed from common practices in accounting analysis, financial reporting, and AI-supported decision-making. Its purpose is to demonstrate how the proposed translation mechanism may operate in a realistic vocational context. Through this example, the study illustrates how professional tasks, such as interpreting financial statements and identifying business risks, can be transformed into structured learning projects through AI-supported translation. This distinction avoids presenting a designed example as empirical evidence while allowing the theoretical model to be examined through a concrete application.

4. Sources of the learning–work gap in curriculum development

Although industry-education integration emphasizes cooperation between schools and enterprises, cooperation alone does not guarantee effective curriculum alignment. The learning–work gap often emerges during the process of selecting, interpreting, and transforming workplace knowledge into educational content. Previous research on vocational learning suggests that occupational competence is not simply a combination of isolated skills; rather, it involves the integration of knowledge, workplace contexts, professional standards, and practical judgement (Billett, 2011; Rauner, 2007). From this perspective, the challenge of curriculum co-development lies not only in identifying what enterprises need, but also in preserving the logic of professional practice throughout the transformation process. This study identifies three interconnected sources of information loss: fragmented demand information, simplified representation of occupational tasks, and insufficient alignment between training activities and workplace assessment.

4.1. The fragmentation of occupational demand information

The first challenge concerns how schools identify changing workplace requirements. Enterprises usually communicate their needs through recruitment information, professional standards, consultations, or general descriptions of required abilities, such as technical proficiency, analytical skills, or familiarity with specific tools. Although useful, such information often provides limited insight into the actual processes through which professionals perform their work. Job advertisements may reflect emerging skill demands more quickly, but they generally describe expected competencies rather than complete occupational practices. Professional standards provide a more systematic reference but may not always change at the same speed as technological development. Meanwhile, workplace documents, operational records, and performance data often contain valuable evidence of real professional tasks, but they may be fragmented, context-specific, or restricted due to confidentiality concerns. As a result, curriculum decisions may rely heavily on expert experience rather than systematic integration of multiple evidence sources. This creates the risk that training programs emphasize visible and easily described skills while overlooking less visible abilities, such as analysis, judgement, and problem solving. As Wheelahan (2015) notes, effective vocational education requires not only responding to immediate workplace demands but also developing knowledge structures that enable learners to adapt to future changes. Therefore, curriculum renewal requires mechanisms that can connect diverse sources of occupational information while distinguishing temporary enterprise requirements from transferable professional capabilities.

4.2. The loss of workplace logic in curriculum transformation

The second challenge appears when enterprise requirements are transformed into curriculum content. Enterprises usually describe work through practical objectives, professional responsibilities, quality requirements, and responses to complex situations. Educational institutions, however, need to organize learning through courses, knowledge units, teaching sequences, and assessment criteria. The difference between these structures may result in the loss of important workplace logic during curriculum design. For example, when an enterprise requires employees to improve financial analysis capabilities, a curriculum response may simply add content related to accounting principles, financial ratios, or software operation. However, students may still struggle to interpret whether financial indicators reflect operational risks, identify abnormal changes in business performance, or provide evidence-based suggestions for decision-making. The issue is therefore not the absence of technical knowledge, but the disappearance of the relationships among information, context, judgement, and professional responsibility that make knowledge applicable in practice. This challenge reflects the distinction between technical skills and work-process knowledge. As Griffiths and Guile (2003) argue, vocational learning requires connections between conceptual understanding and workplace processes rather than the simple transfer of workplace procedures into educational settings. Curriculum development must therefore reconstruct complete occupational contexts instead of reducing professional practice into disconnected knowledge units.

4.3. The misalignment between training activities and workplace assessment

The third challenge concerns the connection between learning activities and workplace expectations. In educational settings, assessment often focuses on whether students can complete tasks according to predefined procedures and produce acceptable outputs. Workplace performance, however, involves broader considerations, including problem diagnosis, risk evaluation, quality assurance, communication, and appropriate decision-making under uncertain conditions (Billett, 2001). For instance, a student may correctly calculate a financial indicator or generate a standard report, but this does not necessarily demonstrate the ability to identify underlying business problems, evaluate information reliability, or explain the implications of the results. Similarly, completing a technical operation according to instructions does not always indicate that the learner understands professional judgement and responsibility boundaries. When enterprises participate only in the initial stage of curriculum development but provide limited feedback on learning outcomes, differences between educational assessment and workplace expectations may remain unresolved. These three challenges are interconnected. Fragmented occupational information may lead to incomplete task descriptions; incomplete task descriptions may produce simplified learning activities; and assessment methods disconnected from workplace practice may prevent curriculum improvement. Therefore, effective industry-education integration requires a continuous mechanism linking occupational evidence, task analysis, learning design, and assessment feedback. The dual-translation model proposed in this study is designed to address this continuous transformation process.

5. AI-supported dual-translation model for curriculum co-development

Based on the previous discussion, this study proposes a dual-translation model to explain how artificial intelligence (AI) can support curriculum co-development under industry-education integration. The model focuses on the process through which workplace knowledge is transformed into educational content. Previous studies have emphasized that vocational competence is developed through the interaction between theoretical knowledge, workplace participation, and practical judgement rather than through the simple acquisition of isolated skills (Billett, 2001; Billett, 2011). Therefore, the challenge of industry-education integration lies not only in establishing cooperation between schools and enterprises, but also in creating mechanisms that enable meaningful transformation between different knowledge systems. In this model, AI is regarded as an enabling technology that supports information processing, knowledge coordination, and curriculum renewal, rather than as a substitute for teachers or enterprise professionals. This perspective is consistent with recent discussions on AI in vocational education, which highlight the importance of human oversight, institutional governance, and professional judgement in AI-supported educational innovation (OECD, 2026).

The first translation concerns the transformation of enterprise requirements into structured occupational tasks. Workplace knowledge is usually embedded in specific professional contexts and distributed across various sources, including occupational standards, recruitment information, technical documents, operational records, and professional reports. Such information reflects different aspects of occupational competence but does not automatically constitute appropriate training content. As Griffiths and Guile (2003) argue, vocational learning requires a connection between conceptual knowledge and work-process knowledge rather than a direct transfer of workplace practices into educational settings. AI can support this translation by organizing heterogeneous information, identifying recurring skill requirements, and revealing potential gaps between enterprise expectations and existing training provision. However, the interpretation of workplace information remains a professional process. Enterprise experts are needed to judge whether identified requirements represent authentic occupational practices, while teachers determine their educational value and relevance for learners. Through this collaborative process, fragmented workplace information can be reconstructed into occupational tasks that include not only operational procedures but also working conditions, professional standards, problem-solving processes, and responsibility boundaries.

The second translation involves transforming occupational tasks into learning projects that can be implemented in vocational training. Authentic workplace activities cannot simply be copied into classrooms because they often involve complex situations, uncertain conditions, and levels of responsibility that students cannot yet assume. Previous research on workplace learning has shown that effective vocational education requires the careful reconstruction of workplace experiences into learning environments that support reflection, practice, and knowledge transfer (Eraut, 2004; Billett, 2011). AI can contribute to this process by supporting the generation of learning scenarios, the organization of teaching resources, and the analysis of learning difficulties. Nevertheless, decisions concerning learning objectives, instructional sequences, professional requirements, and assessment criteria must remain the responsibility of teachers and enterprise experts. From the perspective of boundary crossing, the interaction between schools and enterprises should be understood as a process of coordination and transformation rather than simple knowledge exchange (Akkerman & Bakker, 2011).

The dual-translation model also emphasizes continuous feedback between training outcomes and curriculum improvement. Traditional curriculum development often relies on periodic consultation with enterprises, which may not fully capture rapidly changing occupational requirements. AI-supported analysis provides opportunities to identify learning difficulties, compare educational outcomes with workplace expectations, and support evidence-based curriculum adjustment. However, such analysis should serve as a basis for professional discussion rather than automatic curriculum decisions. Teachers contribute pedagogical knowledge and understanding of learner development, whereas enterprises provide insights into occupational standards and professional practices. Their interaction enables curriculum renewal to become a continuous process of adaptation and improvement.

Overall, the contribution of AI to industry-education integration lies not in automatically producing training content, but in supporting a more transparent and adaptive mechanism for connecting workplace requirements with vocational learning. By linking enterprise information, occupational tasks, learning projects, and curriculum feedback, the dual-translation model provides a framework for improving the alignment between vocational training and changing workplace demands. Because the model focuses on the transformation mechanism rather than a specific occupation, it can be applied across different professional fields, including manufacturing, finance, business services, and other technical or professional domains. This approach reflects the broader principle that AI should enhance human decision-making capacity while maintaining professional responsibility in educational practice (OECD, 2026; UNESCO-UNEVOC, 2026).

6. Application of the model: A Xero-based financial analysis example

To illustrate how the dual-translation model operates, this section presents a design example from financial analysis practice. The example is based on common accounting and business analysis processes supported by digital platforms such as Xero rather than a specific enterprise case. Its purpose is to demonstrate how professional workplace requirements can be transformed into vocational learning activities while preserving the logic of occupational practice.

Assume that a small and medium-sized enterprise uses Xero to manage accounting records, financial transactions, and reporting processes, but requires employees to improve their ability to interpret financial information and support business decisions. A direct curriculum response may focus on additional training in accounting procedures, financial statement preparation, or software operation. However, such an approach may overlook the professional judgement required to interpret financial information, identify potential risks, and provide meaningful recommendations. Vocational competence involves not only technical operations but also the integration of knowledge, workplace context, and practical judgement (Billett, 2011; Mulder, 2017). Through the first translation, the enterprise requirement is reconstructed into a structured occupational task. Instead of simply teaching students how to generate financial reports, the learning content incorporates the complete analytical process, including reviewing financial statements, identifying changes in revenue, costs, cash flow, and profitability, evaluating possible business risks, and explaining the implications of financial information for decision-making. AI can support this process by organizing financial data, identifying unusual patterns, generating preliminary analytical summaries, and assisting with the comparison of financial indicators. However, teachers and financial professionals remain responsible for validating the accuracy of AI outputs, interpreting business contexts, and determining appropriate professional conclusions. The second translation converts the occupational task into progressive learning projects. Students may begin with basic financial statement interpretation, then analyze simulated business performance changes, and finally complete more complex cases involving financial evaluation and management recommendations. These projects do not attempt to reproduce the entire professional environment; rather, they preserve key elements of financial practice, including evidence-based analysis, information evaluation, and responsibility boundaries (Rauner, 2007). Assessment focuses not only on whether students can produce correct financial calculations or reports, but also on whether they can explain the meaning of financial indicators, identify potential problems, and justify their recommendations. Learning evidence collected through these activities can further inform curriculum revision.

This example demonstrates the central argument of the study: AI contributes to industry-education integration not by replacing teachers or automatically generating training content, but by supporting the transformation of workplace knowledge into structured, assessable, and continuously updated learning experiences. The dual-translation model enables vocational education to incorporate emerging digital practices while maintaining the importance of professional judgement and human responsibility

7. Practical evidence and governance considerations

Existing practices indicate that the main components of the dual-translation model have already emerged across different occupational fields, although they often operate separately. At the system level, SkillsCompass in England demonstrates how AI-supported labour-market analysis can integrate occupational information and skills signals to identify changing workforce demands (OECD, 2026). In technical fields, Learning Factories 4.0 in Germany illustrate how advanced industrial environments can be transformed into structured learning experiences through appropriate pedagogical design (Roll & Ifenthaler, 2021). These practices show that AI can support the connection between changing workplace requirements and vocational learning, but the transformation of occupational knowledge into educational activities still requires human interpretation and instructional design.

Beyond manufacturing contexts, similar processes can also be observed in professional service fields. For example, AI-enabled accounting platforms such as Intuit's accounting solutions support tasks including transaction classification, financial reporting, and business data analysis. However, these technologies do not eliminate the need for accounting professionals, because interpreting financial information, identifying potential risks, and providing business recommendations still depend on professional judgement. Through the dual-translation model, enterprise accounting practices can be transformed into vocational learning projects. For instance, workplace tasks such as financial statement analysis, cost evaluation, and financial risk identification can be reconstructed into simulated learning activities in which students use AI tools to assist information processing while developing the ability to interpret results and make professional decisions. This example demonstrates that the model is not limited to manufacturing occupations but can also support the transformation of knowledge-intensive service work into vocational training.

These examples do not provide empirical validation of the proposed model. Rather, they demonstrate that its key elements—including demand identification, knowledge organization, task reconstruction, and practice-oriented learning—have practical foundations across different occupational fields. The contribution of the dual-translation model is to connect these previously separated functions into a continuous process of curriculum co-development. However, AI-enabled industry-education integration requires appropriate governance. First, curriculum decisions should not be determined solely by the short-term needs of individual enterprises. Workplace practices should be combined with occupational standards and broader professional requirements to maintain the transferability of vocational training. Second, AI-generated information must remain subject to human validation. Teachers and enterprise experts should jointly determine occupational relevance, educational value, and assessment standards, as AI cannot replace professional judgement. Third, the use of workplace data requires clear rules regarding security, transparency, and accountability. Enterprise information should be processed within appropriate boundaries, while AI-supported decisions should remain explainable and traceable (OECD, 2026; Yang et al., 2026).

8. Discussion and conclusion

This study argues that the value of AI in industry-education integration lies not in automatically generating curriculum content, but in supporting the transformation of complex workplace knowledge into structured and teachable learning experiences. The dual-translation model explains how enterprise practices can be reconstructed into occupational tasks and further developed into progressive and assessable learning projects. By focusing on the process of knowledge transformation, this study shifts attention from general discussions of school-enterprise cooperation to the specific mechanisms through which professional workplace practices enter vocational education. The proposed model highlights that AI can support vocational education in dealing with highly specialized occupational knowledge that is difficult to directly introduce into classrooms. Through information extraction, task identification, scenario generation, and learning feedback analysis, AI can help organize complex workplace materials, such as enterprise documents, professional reports, and operational records, into structured learning resources. However, AI does not determine occupational standards or educational objectives. Teachers and enterprise experts remain responsible for evaluating professional relevance, learning suitability, and practical requirements. In this sense, AI functions as a coordination infrastructure that enhances human expertise rather than replacing professional judgement.

The application example further demonstrates that the dual-translation model is not limited to manufacturing contexts. Although the illustrative case focuses on the transformation of enterprise practices into vocational learning activities, the same mechanism can be extended to other professional fields. For example, in financial education, enterprise practices such as financial statement analysis, transaction review, and business performance evaluation can be transformed into simulated workplace projects through AI-supported task analysis and curriculum design. AI can assist in organizing financial documents, identifying analytical tasks, generating practice scenarios, and providing learning feedback, while instructors and industry professionals ensure that learning activities reflect authentic professional requirements. This indicates that the dual-translation model may provide a general framework for connecting vocational education with diverse industries where professional knowledge is complex, context-dependent, and continuously changing. The findings suggest that AI-enabled curriculum innovation should focus on building continuous connections among enterprise evidence, occupational tasks, learning projects, and curriculum improvement. Rather than training students to use specific AI tools, vocational institutions should develop learners' ability to apply professional knowledge, interpret information, evaluate AI-supported outputs, and make responsible decisions in realistic work situations. At the same time, appropriate governance mechanisms remain necessary to protect workplace data, maintain human accountability, and prevent curriculum development from being driven only by short-term enterprise demands.

This study has several limitations. It is based mainly on literature, publicly documented practices, and mechanism-based design examples rather than direct empirical implementation. Future research could apply the dual-translation model in different vocational fields and examine its effects on curriculum quality, teacher workload, student problem-solving abilities, and alignment between education and workplace expectations.

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