

How can AI be integrated into TVET occupations?

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- AI can be meaningfully integrated into TVET occupations when it is embedded directly into real vocational tasks, rather than treated as an isolated digital skill. In vocational education, especially in semi-skilled and service-oriented sectors such as tourism and hospitality, the key question is not whether AI will replace workers, but how it will reshape how work is designed, learned, and performed.

- From my experience as a teacher of English at a Tourism Vocational and Technical Anatolian High School, AI integration begins at the level of occupational redesign. Many TVET occupations are evolving due to AI-driven systems such as automated booking platforms, customer relationship management tools, chatbots, and data-supported decision-making. This means that occupations like hotel receptionists, travel consultants, or front-office staff are no longer defined only by manual routines, but by their ability to work alongside AI-supported systems. TVET therefore needs to reflect this reality by preparing learners not just for tasks, but for AI-augmented workflows.

- At the task level, AI becomes a practical learning partner. In my classroom, AI is integrated into everyday vocational activities such as handling customer complaints, writing professional emails, simulating check-in and check-out procedures, and responding to guest feedback. Students use AI tools to draft responses, test different communication strategies, and receive immediate language and task-based feedback. This transforms traditional role-plays into dynamic workplace simulations that closely resemble real working conditions.

- This approach is particularly powerful for semi-skilled learners, who often face language barriers, low confidence, or limited access to individualized support. AI functions as a scaffold rather than a shortcut. It lowers the threshold for participation, supports multilingual learners, and allows students to practice repeatedly without fear of making mistakes. In this sense, AI promotes/supports inclusion and learner autonomy, while the teacher remains responsible for guidance, quality control, and ethical awareness.

- Importantly, AI integration in TVET is not only technical but also pedagogical. Teachers play a crucial role as mediators who help learners understand when AI is helpful, when human judgement is essential, and how to use AI responsibly in professional contexts. This includes discussing data privacy, customer trust, and the limits of automation—topics that are highly relevant in service-based occupations.

- In conclusion, AI can be integrated into TVET occupations by embedding it into authentic vocational tasks, aligning it with evolving workplace practices, and using it as a support mechanism for semi-skilled learners. When used in this way, AI does not replace vocational identity; it strengthens it by making learning more relevant, inclusive, and future-oriented.

2) AI Integration in Tourism TVET: A Classroom-Based Case Example

Context:

- Vocational high school
- Tourism & hospitality pathway
- Semi-skilled learners (A2 level, multilingual background)

AI-Integrated Task:

- Handling a hotel guest complaint
- Students receive a realistic complaint scenario
- Use AI to:
 - draft a professional response
 - adjust tone and level of formality
 - simulate customer interaction
- Teacher guides reflection and improvement

Skills Developed:

- Workplace communication
- Customer service competence
- AI-assisted problem solving
- Confidence and learner autonomy

Impact:

- Tasks mirror real workplace practices
- Reduced language anxiety
- Better preparation for AI-augmented service jobs

3) Summary: Integrating Artificial Intelligence into TVET Classrooms

- The rapid expansion of Artificial Intelligence (AI) is transforming how work is performed across all sectors, including semi-skilled occupations that are typically accessed through Technical and Vocational Education and Training (TVET). While AI discussions often focus on highly technical professions, there is an increasing need to integrate AI into vocational learning environments where students prepare for service-oriented and practical careers.

- In our school's Tourism and Hospitality department, AI is not approached as a replacement for human work but as a tool that augments learning and professional practice. Current evidence shows that AI reshapes occupations mainly by changing tasks and workflows rather than eliminating jobs. Therefore, vocational education must prepare students to collaborate with AI systems in real working situations.

- Through our AI classroom initiatives, students use AI-supported tools to simulate authentic professional tasks such as customer communication, service planning, menu design, booking management, and decision-making processes. These applications help learners develop cognitive, communication, and problem-solving skills alongside practical vocational competencies. By embedding AI into everyday classroom activities, students experience how technology supports judgement, organisation, and service quality in real hospitality roles.

- This approach also addresses the growing risk of a digital and AI divide. Many semi-skilled professions—such as hospitality staff, assistants, and service workers—are often excluded from advanced digital strategies despite benefiting greatly from accessible AI tools. Integrating AI into vocational training ensures that learners gain inclusive access to emerging technologies and are better prepared for evolving labour market expectations.

- Ultimately, our AI-integrated teaching model positions AI as part of inclusive skills development and lifelong learning, strengthening employability, adaptability, and social participation. By aligning classroom practice with changing workplace realities, the department aims to prepare students not only for existing jobs but for AI-augmented careers in the future tourism and service economy.