

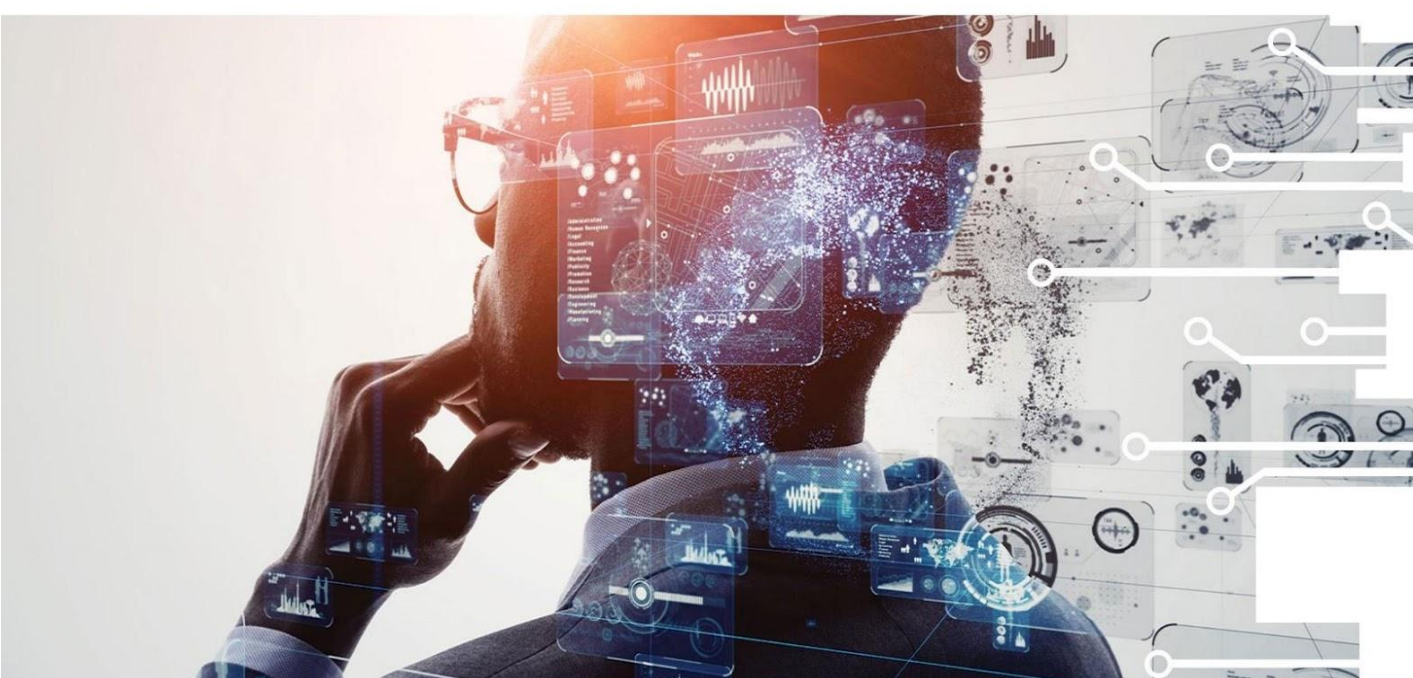


AI4VET4AI

AI-powered Next Generation of VET

AI in market research

IVET Teacher Training Materials



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Purpose of the document

This document supports IVET teachers in integrating the MOOC into their teaching practice. It provides pedagogical guidance, classroom implementation strategies, AI use cases relevant to vocational education, and ready-to-use activities. The materials are designed to support both classroom delivery and teacher self-study.

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1. Introduction to the MOOC and Its Relevance for IVET Trainers

1.1 What this MOOC is About

This MOOC, AI in Market Research, introduces how Artificial Intelligence is used in modern market research to analyse customer data, identify trends, and support business decision-making. It explains key AI concepts (such as machine learning, natural language processing, recommendation systems, and sentiment analysis) in simple language and shows how these technologies appear in everyday business practice.

1.2 Why this Topic Matters for IVET Students

The topic is highly relevant for Initial Vocational Education and Training (IVET) because AI is already transforming sectors such as marketing, retail, tourism, hospitality, and online services. Businesses rely on AI-supported tools to understand customer behaviour, monitor market trends, and improve products and services. IVET students entering these fields need a basic understanding of how AI is used in typical workplace tasks, even if they are not programmers.

1.3 How this MOOC Supports Vocational Competence Development

The MOOC supports vocational competence development by linking theoretical concepts to real-world examples and case studies from business and marketing. Students see how customer reviews, online behaviour, and simple datasets can be analysed using AI-supported approaches to support marketing decisions. This helps them understand how data-driven decision-making works in real workplaces.

To make classroom implementation easier, the MOOC is accompanied by:

- an IVET Teacher Training guide (this document), which offers pedagogical guidance, classroom activities, and assessment ideas;
- a project-based learning (PBL) task, Customer Feedback in Market Research, where students act as junior market research assistants and analyse real customer feedback for a chosen business;
- a set of detailed AI in market research use-case scenarios (e.g. sentiment analysis for brand reputation, AI-based privacy protection, ethical personalised marketing), which can be used for advanced discussions on AI applications and ethics.

1.4 How this MOOC Supports IVET Teachers

Together, these resources enable IVET trainers to implement the course flexibly: from short, low-threshold classroom activities based on selected MOOC units, to a full 5 ECTS offer that combines online learning, literature-based study, and a substantial project in a realistic vocational context. Teachers are not required to implement the full 5 ECTS structure; they can select the modules, readings, activities, and the PBL project elements that best fit their existing courses, available time, and student needs.

2. Target Learners and Vocational Relevance

These learners are preparing for roles where understanding customer behaviour, supporting marketing activities, and working with basic business data are part of everyday tasks.

No prior knowledge of AI is required. Basic digital literacy is recommended, for example:

- using a web browser and online learning platform
- reading simple charts and tables
- typing short texts and using basic office tools

The MOOC gradually introduces AI concepts using concrete examples and simple language, making it suitable for students with limited technical background. All activities focus on understanding and interpretation rather than programming or advanced mathematics.

The skills developed are directly relevant to typical vocational careers, such as:

- marketing or digital marketing assistant
- market research assistant
- sales or retail associate
- customer service representative
- tourism and hospitality staff managing guest experience

The PBL project, *Customer Feedback in Market Research*, further strengthens vocational relevance by asking students to work with real businesses (e.g. cafés, shops, hotels, gyms, service providers). They collect and analyse customer feedback and propose realistic improvements, mirroring tasks they may perform in real jobs.

By focusing on realistic examples and simple tools, the MOOC and its accompanying materials help learners connect AI and market research concepts to familiar work environments and support their transition into employment.

3. Learning Objectives and Competence Development

3.1 Learning Outcomes

After completing all three units of this MOOC module, students will be able to:

After completing the MOOC and selected classroom activities, students will be able to:

- Define key AI concepts used in market research (e.g. machine learning, natural language processing, data mining, sentiment analysis).
- Describe in simple terms how these AI concepts are used in market research and everyday business contexts.
- Explain how AI is used to analyse customer data and identify market trends.
- Identify and use basic AI tools and techniques relevant to market research tasks (e.g. simple sentiment analysis tools, basic dashboards or charts).
- Analyse simple AI-supported market research scenarios, such as customer feedback analysis or trend identification, and interpret what the results mean for a business.
- Evaluate the benefits and limitations of AI applications in market research (e.g. speed, scale, risk of bias, misunderstandings).
- Assess ethical considerations, including data privacy, fairness, bias, and responsible use of AI in market research.

The project-based learning task Customer Feedback in Market Research supports especially objectives 3–7 by guiding students through data collection, analysis, recommendation writing, and ethical reflection in a realistic business context.

3.2 Competence development

The MOOC and accompanying materials support the development of three types of competences:

Vocational competences

Students learn how market research is used in business environments and how AI-supported tools can help understand customer satisfaction, preferences, and problems. They practise working with customer feedback, identifying patterns, and proposing improvements for real or realistic businesses.

Digital competences

Learners strengthen essential digital skills such as working with online platforms, handling simple datasets, creating tables and charts, and interpreting outputs from basic analytics or AI-supported systems. They develop an informed user perspective on AI tools used in marketing and market research.

Transversal competences

The activities and PBL project promote critical thinking, problem-solving, and analytical skills by asking students to interpret data, question results, and reflect on limitations and ethical issues. Communication and collaboration skills are developed through group work, presentations, and written reports. Project planning and time management are practised in the multi-step PBL assignment.

3.3 Contribution to employability

These competences support employability in roles where digital tools and data interpretation are part of everyday work. Students who complete the MOOC and related classroom activities are better prepared to:

- work with customer data and simple digital tools
- support marketing, sales, and customer service activities with basic evidence
- understand and communicate simple business insights based on data
- participate in discussions about responsible and ethical use of AI in their sector

The competences are aligned with key European frameworks for digital and transversal skills and help learners build confidence in technology-driven workplace environments.

Example of a constructive alignment table is given in the Appendix B.

4. Overview of the MOOC Structure and Content

The MOOC is organised as a structured learning pathway that progresses from basic AI concepts to applied techniques and ethical considerations in market research. It consists of three modules, each with three units.

4.1 Module Overview

- **Module 1 – Introduction to AI in Market Research**
Focus: basic AI concepts, key terminology, and the role of data in understanding customer behaviour and market trends.
Approximate duration: **300 minutes** (5 hours).
- **Module 2 – AI Techniques for Market Analysis**
Focus: practical AI-related techniques used in market research, including identifying market trends, sentiment analysis, and real-world applications of AI tools.
Approximate duration: **300 minutes** (5 hours).
- **Module 3 – Ethical and Practical Considerations in AI-driven Market Research**
Focus: ethical issues, data privacy and protection (e.g. GDPR), responsible AI use, and practical implementation challenges in organisations.
Approximate duration: **300 minutes** (5 hours).

The **total estimated MOOC time is 900 minutes (15 hours)**. This includes video content, MOOC readings, and embedded online activities. The additional pre-reading package and short written tasks linked to each module bring the overall **MOOC + pre-readings workload to approximately 75–90 hours (3 ECTS)**; the precise workload depends on how many optional tasks teachers choose to assign.

4.1.1 Units

Each module is divided into three units that can be used as separate lesson blocks or combined into longer sessions:

- **Module 1**
 - Unit 1.1: Introduction to AI Concepts for Market Research
 - Unit 1.2: Key Terminology and Tools in AI-Driven Market Research
 - Unit 1.3: Understanding Data in Market Research.
- **Module 2**
 - Unit 2.1: Basic Techniques – Identifying Market Trends
 - Unit 2.2: Advanced Techniques – Sentiment Analysis and Customer Perception
 - Unit 2.3: Case Studies – AI Applications in Market Research.
- **Module 3**
 - Unit 3.1: Case Studies in Ethical AI Implementation
 - Unit 3.2: Privacy and Data Protection Case Studies
 - Unit 3.3: Challenges and Opportunities in AI-driven Market Research.

For IVET implementation, teachers can:

- use individual units as stand-alone lessons;
- group units into larger blocks (e.g. two units in a 90-minute session);

- complement selected units with classroom activities, the project-based learning task *Customer Feedback in Market Research*, or the detailed AI use-case scenarios.

The project-based learning task fits particularly well **after Modules 1 and 2**, when students already understand core AI concepts and basic techniques for analysing customer feedback and trends. Teachers who cannot allocate the full 3 ECTS to the MOOC may select specific modules or units and still link them to a shortened or adapted version of the project.

Estimated completion time

The estimated completion time for the **MOOC itself** is **15 hours**, assuming students watch all videos, engage with embedded activities, and complete the main online tasks. Pre-readings extend this to the full 3 ECTS workload.

Each unit is designed to be completed in approximately **1 hour and 40 minutes** of MOOC work, which can be split or combined to fit standard IVET lesson blocks. Teachers may extend selected units with additional classroom activities depending on lesson duration and learning objectives.

Level of difficulty

Level: Beginner to intermediate

The content is designed for learners with no prior knowledge of AI and gradually introduces more applied and analytical elements, making it suitable for IVET students in business and marketing-related programmes.

5. Key AI Concepts Explained for Teachers

To support confident classroom delivery, this section explains key AI concepts in simple, non-technical language. The aim is to help teachers understand the basics and feel comfortable explaining them to students using relatable examples from business and marketing contexts.

5.1 Machine Learning

Plain-language definition:

Machine learning is a type of AI that allows computers to learn from data and improve their performance without being explicitly programmed.

Simple explanation and analogy:

It is like teaching a student by showing examples instead of giving exact instructions. Over time, the student recognises patterns and can make decisions independently. Similarly, a machine learning system learns from data and uses that knowledge to make predictions.

Real-world vocational example:

A company analyses past customer purchases to predict which products are likely to sell well in the future.

Relevance to the sector:

In market research, machine learning helps businesses analyse large amounts of customer data, identify patterns, and support decision-making in marketing and sales.

5.2 Natural Language Processing (NLP)

Plain-language definition:

Natural Language Processing (NLP) enables computers to understand and interpret human language, such as text or speech.

Simple explanation and analogy:

It is like teaching a computer to “read” and “understand” language the way people do. Just as a person can understand whether a review is positive or negative, NLP allows a computer to do the same.

Real-world vocational example:

A business analyses customer reviews on social media to understand how people feel about a product.

Relevance to the sector:

NLP is widely used in market research to analyse feedback, detect customer sentiment, and identify trends in opinions and preferences.

5.3 Chatbots

Plain-language definition:

Chatbots are AI systems that can communicate with users through text or voice, often used in customer service.

Simple explanation and analogy:

A chatbot is like a digital assistant that answers questions automatically. Similar to a shop assistant helping customers, a chatbot provides information or support without human intervention.

Real-world vocational example:

An online store uses a chatbot to answer customer questions about products, delivery, or returns.

Relevance to the sector:

Chatbots help businesses collect customer data, improve service efficiency, and gain insights into common customer needs and questions.

5.4 Recommendation Systems

Plain-language definition:

Recommendation systems suggest products, services, or content to users based on their behaviour and preferences.

Simple explanation and analogy:

It is like a salesperson who remembers what a customer liked before and suggests similar products. The system learns from past choices to offer personalised recommendations.

Real-world vocational example:

An e-commerce website recommends products based on what a customer has previously viewed or purchased.

Relevance to the sector:

In market research and marketing, recommendation systems help businesses personalise offers and better understand customer preferences.

5.5 Predictive Analytics

Plain-language definition:

Predictive analytics uses data and AI to forecast future outcomes or trends.

Simple explanation and analogy:

It is similar to predicting the weather based on past data. By analysing patterns, the system estimates what is likely to happen next.

Real-world vocational example:

A company predicts future sales based on previous campaigns and customer behaviour.

Relevance to the sector:

Predictive analytics helps businesses make informed decisions, plan marketing strategies, and anticipate customer demand.

5.6 Data Mining

Plain-language definition:

Data mining is the process of finding useful patterns and insights in large amounts of data.

Simple explanation and analogy:

It is like searching for hidden patterns in a large collection of information, similar to finding trends in customer shopping habits.

Real-world vocational example:

A retailer identifies which products are often bought together to improve product placement or promotions.

Relevance to the sector:

Data mining supports market research by helping businesses discover trends, segment customers, and improve decision-making.

Together, these concepts provide a foundation for understanding how AI supports decision-making in market research contexts.

For teachers who are new to AI concepts, the following resources provide clear and accessible introductions:

- [Elements of AI](#) – a free introductory course explaining AI basics in simple terms
- [Google AI](#) – beginner-friendly explanations and examples of AI applications
- [IBM SkillsBuild](#) – practical courses and materials for understanding AI in business contexts
- [Coursera](#) – introductory courses on AI and data analysis

6. Pedagogical Guidance for Classroom Implementation

This section provides practical guidance to help teachers integrate the course into IVET teaching in a structured and flexible way. It explains how the **MOOC + pre-readings** and the **project-based learning (PBL) task** can be used together or separately, depending on curriculum needs, lesson time, and student level. .

6.1 Implementation approaches

Teachers can choose among several approaches, depending on time, curriculum and student level:

- **MOOC-centred approach**
Teachers use selected modules and units from the MOOC as the main resource, supported by short pre-reading texts and simple classroom activities. This suits situations where there is limited time for project work or where the focus is on introducing AI concepts and applications in an accessible way.
- **Project-based approach**
Teachers use the PBL task *Customer Feedback in Market Research* as the central activity. The MOOC provides the conceptual background (e.g. AI in market research, sentiment, trends, ethics), while classroom time is used to introduce the project, support planning and analysis, and host presentations.
- **Combined approach**
Teachers combine both elements: students first work through key MOOC units (for example, from Module 1 and 2) and then complete the PBL project as a capstone. This allows students to first build understanding of concepts and methods and then apply them to real customer feedback from a chosen business.
- **Case-study and discussion approach**
Teachers focus on short MOOC units and the detailed AI in market research use-case scenarios (sentiment analysis, privacy protection, personalised marketing) as reading and discussion material, without running a full project. This is suitable when the goal is to raise awareness of AI in business and ethics rather than to conduct full research tasks.

Teachers are encouraged to select the combination that best fits their timetable, existing subjects, and students' prior knowledge.

6.2 Teaching recommendations

To support effective learning, teachers are encouraged to:

- **Combine MOOC content with interaction**
After students complete a unit or video, use short questions, pair discussions or quick quizzes to check understanding and connect concepts to vocational examples (e.g. local shops, hotels, online stores).
- **Link theory and practice explicitly**
When students work on reviews or on the project, refer back to specific MOOC content (for example, units on data types, sentiment analysis, or ethics) so that students see how theory supports their practical work.
- **Adjust depth and difficulty**
 - For less experienced groups, use simpler texts, smaller datasets, and more guided worksheets.
 - For more advanced groups, include more of the recommended readings, require more detailed analysis, and use the detailed AI use-case scenarios for deeper ethical and organisational discussions.
- **Use low-tech or high-tech options as appropriate**

All activities can be carried out with basic tools (printed reviews, paper tables, simple spreadsheets). Where possible, teachers may also show simple online dashboards or tools, but the focus should remain on understanding and interpretation rather than on software skills.

6.3 Examples of good practice

The following examples illustrate how teachers have used the materials in different IVET settings.

- **Example 1 – Vocational business school (marketing)**

The teacher selected units from Module 1 and 2 and combined them with a small classroom activity on customer reviews. Students worked in pairs to classify reviews by sentiment and identify recurring themes, then presented one slide linking their findings to concepts from the MOOC. This approach fitted into a few lessons and helped students connect AI concepts to familiar products and services.

- **Example 2 – Retail programme (customer service focus)**

With limited time for project work, the teacher adapted the PBL task into a mini-project. Groups received a small dataset of reviews from local shops, classified sentiment, identified main problems, and wrote short recommendations. This gave students a taste of research and evidence-based improvement without a large workload.

- **Example 3 – Business and digital skills course**

The teacher used all three MOOC modules and then implemented the full *Customer Feedback in Market Research* project as a capstone. Students selected real businesses, collected data from at least two sources, analysed patterns and sentiment, and presented their findings and ethical reflections. This supported gradual learning from concepts to real-world application.

- **Example 4 – Ethics and digital citizenship focus**

In a cross-curricular setting, a teacher used selected short MOOC videos from Module 3 together with the detailed AI use-case scenarios on sentiment systems, privacy protection and personalised marketing. Students analysed stakeholders, risks, and open issues in small groups and discussed how responsible AI use should look in their own vocational sectors, without doing their own data collection.

These examples show that the same materials can be used for short topic blocks, mini-projects, or more extensive project-based learning, depending on local needs.

7. AI Use Cases for IVET Classroom Implementation

AI is already part of everyday business practice, especially in areas such as marketing, customer service, and sales. The following examples translate these real-world applications into simple, classroom-ready activities that help students understand how AI is used in market research and related functions.

7.1 Use Case 1: AI-powered Sentiment Analysis for Brand Reputation Management

(Modules 1–2: AI concepts, data, sentiment analysis)

Description

Many companies use AI-powered sentiment analysis systems to monitor what customers say about their brand on social media, review sites, and online forums. These systems use natural language processing to classify feedback as positive, negative, or neutral, detect trends over time, and alert brand managers to emerging issues that could affect reputation.

Trainer guidance

The teacher can briefly describe the role of a Brand Manager and show a simplified process (collect data → clean data → classify sentiment → detect trends → take action). Students work individually or in pairs to:

- examine a small set of example comments or reviews (prepared by the teacher)
- decide whether each is positive, negative, or neutral and identify the main issue (e.g. price, quality, service)
- discuss what an AI system would do automatically in this process and where human input is still needed (e.g. understanding sarcasm, deciding on actions).

Optionally, the teacher can show a screenshot of a dashboard (real or mock-up) with sentiment over time and ask students to interpret what is happening.

Discussion questions

- How can AI-powered sentiment analysis help a company protect and improve its brand reputation?
- What might AI systems miss or misunderstand when analysing text (e.g. sarcasm, cultural context)?
- Why is it risky to rely only on AI outputs without human review?
- Which job roles (e.g. brand manager, marketing specialist, customer support manager) might work with such a system in real life?

7.2 Use Case 2: AI-based Consumer Privacy Protection in Market Research

(Module 3: ethics, privacy, data protection)

Description

Market research organisations handle large amounts of consumer data from surveys, behavioural tracking, and demographic information. AI-based privacy protection systems automatically anonymise or pseudonymise personal data, check compliance with regulations such as GDPR, and monitor for potential privacy breaches. This allows researchers to analyse data while protecting individuals' privacy.

Trainer guidance

The teacher introduces the role of a Data Privacy Officer and explains that their job is to ensure data is handled legally and ethically. Students work in small groups to:

- list examples of personal data that could appear in a market research dataset
- decide which pieces of information should be anonymised or removed before analysis
- discuss how an AI system could help with anonymisation, compliance checks, and risk monitoring, and where human oversight is still required.

The teacher can provide a simple “before/after” example: a small table with identifiable data and a version where personal identifiers are removed or pseudonymised.

Discussion questions

- Why is anonymisation important in market research, for both companies and consumers?
- How can AI systems support privacy protection, and what risks remain (e.g. re-identification, false alerts)?
- Who should be responsible if a privacy breach happens when AI tools are used (company, software provider, individual users)?
- How does strong privacy protection influence consumer trust and willingness to participate in research?

7.3 Use Case 3: AI-driven Personalised Marketing Campaigns with Ethical Safeguards

(Modules 2–3: applications, implications, ethics)

Description

Digital marketing agencies increasingly use AI to segment consumers and deliver personalised marketing campaigns. AI models analyse website interactions, purchase history, social media engagement, and demographic data to recommend tailored content and offers. At the same time, ethical safeguards are needed to avoid intrusive targeting, unfair bias, and violations of privacy regulations.

Trainer guidance

The teacher introduces the role of a Marketing Data Analyst in an agency and outlines a simple process (collect data → segment audience → generate personalised content → check ethics and compliance → launch and monitor campaign). Students, in small groups:

- identify examples of personalised marketing they have experienced (e.g. targeted ads, email offers, product recommendations)
- discuss what types of data are likely used to create these messages
- consider possible benefits (relevance, better offers) and risks (feeling “watched”, unfair targeting, misuse of sensitive data).

Optionally, groups can role-play a short meeting between a marketing team and a Data Privacy Officer discussing which targeting rules are acceptable.

Discussion questions

- How can AI-driven personalisation improve customer experience and marketing results?
- What are potential ethical problems (e.g. discriminatory targeting, manipulation, lack of transparency)?
- How can companies ensure that personalised campaigns respect privacy and are fair and non-intrusive?
- Which human checks and rules should exist before launching an AI-driven marketing campaign?

These three use cases can be used independently or linked to MOOC modules and the PBL project. For example, the sentiment analysis use case connects well to manual sentiment coding in the project, while the privacy and personalised marketing use cases support ethical discussions in Module 3.

8. Classroom Activities and Practical Exercises

The following activities are designed to be easy to implement in IVET classrooms. They require minimal preparation, encourage active participation, and help students connect AI concepts to real-life business situations.

8.1 Activity 1: Understanding Customer Reviews

(Linked to Module 2 – sentiment analysis; preparation for the PBL project)

Objective

Help students recognise patterns in customer feedback and understand how AI can support this process.

Description

Students analyse a small set of customer reviews and identify common themes and sentiment.

Instructions for teachers

- Provide 5–10 short product or service reviews (printed or on screen).
- Ask students (individually or in pairs) to:
 - decide whether each review is positive, negative, or neutral
 - highlight key words or repeated ideas
 - summarise what customers like or dislike in 2–3 bullet points.
- Discuss briefly how AI tools would perform the same task (e.g. automatically classifying sentiment and counting how often themes appear), and what AI might find difficult (sarcasm, mixed opinions).

Duration and group size

30–45 minutes; individual work or pairs.

Expected learning outcomes

- Students understand how simple text data (reviews) can be analysed.
- Students see how AI can support sentiment analysis, but also why human interpretation remains important.

Adaptation tips

- Use shorter and simpler texts for lower-level students; for more advanced learners, introduce mixed or ambiguous reviews.
- This activity can be used as a **warm-up** for the project *Customer Feedback in Market Research*, where students later analyse a larger set of reviews and other feedback sources.

8.2 Activity 2: Spot the AI in Everyday Life

(Linked to Module 1 – AI concepts and applications)

Objective

Help students recognise where AI is used in daily business contexts.

Description

Students identify examples of AI in apps, websites, and services they use regularly.

Instructions for teachers

- Ask students to list a few platforms they use (e.g. online shops, streaming services, social media, navigation apps).
- In small groups, ask them to:
 - identify where AI might be used (e.g. recommendations, chatbots, spam filters, targeted ads, translation)
 - explain in simple terms what the AI seems to be doing
 - select one example to share with the class.
- Prompt them with a guiding question:
 - “Where do you think AI is working in the background on this platform?”

Duration and group size

20–30 minutes; small groups.

Expected learning outcomes

- Students can recognise common AI applications.
- Students can relate AI functions to business goals (e.g. better service, more sales, customer retention).

Adaptation tips

- Provide concrete examples if students struggle (e.g. Netflix, Amazon, Spotify, Google Maps).
- For advanced groups, extend the discussion to what data might be used and how that data is collected.

8.3 Activity 3: Identifying Market Trends

(Linked to Module 2 – trend analysis)

Objective

Develop basic skills in recognising trends and understanding their importance for businesses.

Description

Students analyse simple trend data and discuss changes in customer behaviour.

Instructions for teachers

- Show a simple chart, image, or example (e.g. popularity of different products, search trends over time, seasonal demand).
- Ask students, in pairs or small groups, to:
 - identify what is increasing or decreasing
 - suggest reasons for these changes (e.g. fashion, price, season, social media influence)
 - discuss how a business might respond (e.g. change stock, adjust marketing, offer promotions).
- Conclude with a question such as:
 - “If you worked in this business, what one change would you suggest based on this trend?”

Duration and group size

30–45 minutes; pairs or small groups.

Expected learning outcomes

- Students understand how simple trend data is interpreted.

- Students see why recognising trends matters for marketing and sales decisions.

Adaptation tips

- Use familiar topics (fashion, food, technology, tourism).
- For stronger students, use slightly more complex charts or compare two trends (e.g. rising interest in one product and falling interest in another).

8.4 Activity 4: Chatbot Analysis

(Linked to Module 1/2 – NLP and customer interaction)

Objective

Understand how chatbots support customer service and data collection.

Description

Students explore how chatbots interact with customers and what information they collect.

Instructions for teachers

- Show a chatbot example (short video, screenshot sequence, or a live demo on a website).
- Ask students, in pairs or small groups, to:
 - identify what questions the chatbot asks and how it responds
 - discuss what information it collects (e.g. name, problem type, purchase details, preferences)
 - evaluate advantages (e.g. 24/7 help, speed) and limitations (e.g. misunderstandings, lack of empathy).
- If possible, compare the chatbot interaction with how a human staff member might handle the same situation.

Duration and group size

20–30 minutes; pairs or small groups.

Expected learning outcomes

- Students understand the role of chatbots in business and customer interaction.
- Students recognise both benefits and limitations of automating parts of customer service.

Adaptation tips

- If a live example is not available, provide a simple chatbot script or screenshot dialogue.
- For advanced students, add questions about how chatbot data might be used later in market research and what ethical issues could arise.

8.5 Activity 5: AI Ethics Discussion

(Linked to Module 3 – ethics, privacy, fairness)

Objective

Encourage critical thinking about ethical issues in AI.

Description

Students discuss simple ethical scenarios related to AI use in marketing and market research.

Instructions for teachers

- Present a short scenario, for example:
 - using personal data for targeted recommendations;
 - an AI system misclassifying reviews and harming a business's reputation;
 - a marketing campaign that uses very detailed profiling of customers.
- In small groups or as a whole class, ask students to discuss:
 - whether the situation is acceptable
 - possible risks (e.g. privacy, bias, manipulation, lack of transparency)
 - how the situation could be improved (e.g. clearer consent, safeguards, human checks).
- Summarise key points and note different perspectives on the board.

Duration and group size

30 minutes; small groups or whole class.

Expected learning outcomes

- Students understand basic ethical issues such as privacy, fairness, and responsibility.
- Students can express and justify their opinions about AI use in customer-related contexts.

Adaptation tips

- Use simple, relatable examples linked to platforms students know.
- For advanced groups, base the scenario on one of the detailed AI use-case descriptions (sentiment analysis, privacy protection, personalised marketing) and ask students to identify stakeholders, benefits, and risks.

These five activities can stand alone or be combined with the MOOC units, the detailed AI use-cases, and the *Customer Feedback in Market Research* project to create a varied and engaging learning experience.

9. Assessment and Evaluation Validation

Assessment in this course should focus on how well students understand key concepts and how they apply them in simple, practical situations. The emphasis is not on technical detail, but on interpretation, reasoning, and the ability to connect AI concepts to real-world vocational contexts.

Assessment should be aligned with the intended learning outcomes and focus on practical application rather than technical complexity. A variety of assessment methods can be used to support different learning styles and classroom situations.

9.1 Examples of assessment methods

- **Quizzes**
Short quizzes can be used after each unit to check understanding of key concepts (e.g. AI terms, basic applications). These can include multiple-choice questions, matching tasks, or short open questions.
- **Student assignments**
Individual tasks can include analysing a short example (e.g. a set of customer reviews), explaining how AI is used in a given scenario, or identifying AI applications in everyday business situations.
- **Projects**
Small, structured projects allow students to apply what they have learned. For example, students can interpret a simple dataset, identify trends, and suggest ideas based on their findings. The larger project *Customer Feedback in Market Research* can also be used for more extensive assessment.
- **Presentations**
Students can present a simple use case of AI in market research (e.g. chatbots, recommendation systems), explaining how it works and why it is useful in business.
- **Group work**
Group activities can include discussions, case study analysis, or role-based tasks where students explore how businesses use AI to make decisions and how this affects customers.

9.2 Example assessment tasks

- Analyse a set of customer reviews and identify key themes and sentiment.
- Explain how a recommendation system works using a real-life example.
- Identify two ways AI is used in market research and describe their benefits.
- Discuss a simple ethical issue related to AI (e.g. use of personal data for targeting).
- Interpret a basic dataset or chart and describe what it shows for a business.

These tasks can be used as short assessments during lessons or as parts of larger assignments and projects.

9.3 Assessment criteria

Assessment should be based on the following aspects:

- **Understanding of concepts** – ability to explain key AI ideas in simple terms.
- **Application** – ability to connect concepts to practical examples and vocational contexts.
- **Analysis** – ability to identify patterns, trends, or key points in simple data and scenarios.
- **Communication** – clarity and structure in presenting ideas (spoken or written).

- **Participation** – engagement in group work and discussions.

9.4 Assessment Rubric

Table 1 Example Rubric

Criteria	Basic level	Intermediate level	Advanced level
Understanding of concepts	Recognises basic terms	Explains concepts in own words	Clearly explains and connects concepts
Application	Identifies simple examples	Applies concepts to given tasks	Applies concepts independently to new situations
Analysis	Identifies obvious patterns	Describes patterns with some explanation	Provides clear and justified interpretation
Communication	Gives short or unclear responses	Communicates ideas clearly	Presents ideas confidently and logically
Participation	Limited participation	Participates when prompted	Actively contributes to activities

9.5 Practical considerations for teachers

Assessment activities should be short, clear, and aligned with lesson objectives. Tasks can be adapted depending on student level, with additional support provided where needed. Combining different methods (e.g. quiz, discussion, and practical tasks) helps teachers gain a more complete picture of student understanding.

The focus should remain on evaluating how well students understand concepts and apply them in context, rather than on technical complexity or programming skills.

10. Integrating the MOOC into IVET curricula

Integrating AI-related content into existing vocational programmes does not require major curriculum changes. This course can be used to enrich current subjects by adding relevant, real-world examples of how AI is used in different sectors and by offering a structured project where students analyse real customer feedback.

Teachers can choose whether to use only selected MOOC units and activities, or to integrate the full course including the project-based learning task.

10.1 Using the MOOC across different vocational programmes

Business and marketing courses

The course fits naturally into subjects related to marketing, sales, and entrepreneurship. It supports topics such as customer behaviour, market analysis, and digital marketing by showing how AI tools are used to analyse data, monitor reviews, identify trends, and support business decisions.

IT and digital skills courses

In IT-related programmes, the MOOC can be used to introduce AI concepts from a user perspective rather than a programming perspective. Students gain an understanding of how AI systems work in practice, how they are applied in business environments, and what limitations and ethical questions they raise.

Tourism and hospitality training

The content is relevant for understanding customer experience, online reviews, and personalised services in tourism and hospitality. Students can explore how businesses use AI to analyse guest feedback, manage online reputation, and improve service quality.

Other vocational fields (e.g. healthcare, public services)

Although the focus is on market research, selected concepts such as data analysis, ethics, and data protection can be connected to other contexts, for example patient or client data management, communication, and decision-making. Teachers can use simplified examples to relate AI concepts to their own sector.

10.2 Suggested implementation models

Full course integration

The course can be integrated as a complete learning unit within an existing subject. Teachers can deliver one MOOC unit per lesson, combining online content with explanation, discussion, and classroom activities, and then use the Customer Feedback in Market Research project as a capstone assignment.

Supplementary material

Selected modules or units can be used to support existing lessons. For example, a teacher may use a unit on trend analysis to enrich a marketing topic, a unit on sentiment analysis to support work with customer reviews, or a unit on ethics to support discussions on data protection and responsible AI use.

Project-based learning focus

The MOOC can serve as a conceptual foundation for classroom projects. Students can work in groups on structured tasks such as interpreting customer feedback, identifying simple trends, or completing the full Customer Feedback in Market Research project. This is especially suitable in practice-oriented modules where project work is already foreseen. Teachers do not need to use all components; they can select the combination of MOOC units, activities, and project elements that best fits their programme and time.

10.3 Steps for institutional integration

To support effective implementation, the following steps are recommended:

- **Review institutional policies** - Check school or institutional guidelines regarding the use of external learning platforms, online tools, and AI-related resources.
- **Identify curriculum alignment** - Select modules, units, and activities that match existing learning outcomes, subject content, and assessment practices. Decide where the course will sit (e.g. marketing, digital skills, cross-curricular project).
- **Communicate with students** - Explain how the course fits into their programme, what is expected (e.g. MOOC completion, assignments, project work), and how their work will be assessed. Clarify the balance between online learning and classroom sessions.
- **Plan classroom integration** - Schedule lesson time to complement independent MOOC learning with discussions, short activities, and reflection tasks. If the project is used, plan enough time for project launch, guidance, and presentations.

11. Supporting Students with Different Backgrounds and Needs

Learners in IVET classrooms often have different levels of digital skills, confidence, and prior knowledge. When introducing AI-related topics, it is important to create an inclusive learning environment where all students feel supported and able to participate.

11.1 Students with low digital skills

Some students may feel unsure when working with digital tools or interpreting data.

Practical strategies:

- use simple, step-by-step instructions
- demonstrate tasks before asking students to complete them
- provide visual examples (screenshots, short videos)
- allow students to work in pairs so they can support each other

11.2 Students with no prior AI knowledge

AI can seem complex or abstract for beginners.

Practical strategies:

- introduce concepts gradually, starting with everyday examples
- avoid technical language and explain terms in simple ways
- use analogies (e.g. comparing AI learning to human learning)
- regularly check understanding through short questions or discussions

11.3 Students with different learning speeds

Students may progress at different rates and require different levels of support.

Practical strategies:

- provide additional time for tasks when needed
- offer optional extension activities for faster learners
- break tasks into smaller steps
- give clear instructions and expected outcomes for each activity

11.4 Students with fear or anxiety about AI

Some learners may feel concerned about AI replacing jobs or may lack confidence in their ability to understand the topic.

Practical strategies:

- discuss AI as a tool that supports, rather than replaces, human work
- use positive and realistic examples from everyday life
- encourage open discussion about concerns and questions
- focus on practical skills students can develop

11.5 Students with disabilities

Students with different learning needs may require adapted materials or approaches.

Practical strategies:

- use accessible materials (clear layout, readable fonts, simple language)
- provide alternative formats where possible (text, audio, visual)
- give clear verbal explanations alongside written instructions
- ensure group work allows all students to participate in a meaningful way

11.6 General classroom approach

A supportive classroom environment is key to successful learning. Teachers are encouraged to:

- create a safe space where students feel comfortable asking questions
- use a variety of teaching methods (visual, discussion, practical tasks)
- connect content to familiar, real-life situations
- provide regular feedback and encouragement

12. Additional Resources for Teachers

A variety of practical resources can support lesson preparation and help teachers bring AI concepts into the classroom in a simple and engaging way. The focus here is on tools and materials that can be directly used or adapted for IVET teaching.

12.1 Videos and visual explanations

Short, visual materials are useful for introducing or reinforcing key concepts:

- explainer videos on topics such as “How recommendation systems work” or “What is machine learning?”
- short case-based videos showing how businesses use AI in marketing or customer service
- animations that illustrate how data is collected and analysed

These can be used at the start of a lesson to introduce a topic or at the end to support revision.

Teachers can also use [NotebookLM](#) to generate simple, customised video-style explanations or summaries based on selected materials, which can be adapted to the level of their students.

These resources can be used at the start of a lesson to introduce a topic or at the end to support revision.

12.2 AI tools and platforms to explore

Teachers can use simple, accessible tools to demonstrate how AI works in practice:

- [ChatGPT](#) – for generating example customer responses, summaries, or ideas
- [Google Trends](#) – for exploring real-time interest in products or topics
- [Mentimeter](#) – for collecting live student responses and opinions
- [Padlet](#) – for sharing ideas, examples, or reflections in group activities

These tools support interactive teaching and help students engage with content in a practical way.

12.3 Practical classroom materials

Teachers can create or adapt simple materials to support learning:

- worksheets for analysing customer reviews or identifying trends
- guided questions for discussions or reflection tasks
- simple datasets for classroom exercises
- scenario cards for role-play activities

Such materials help structure activities and make abstract concepts easier to understand.

12.4 Policy and framework resources

Introducing AI also requires awareness of responsible and ethical use:

- European Commission – resources on digital skills, AI strategy, and regulation
- [GDPR \(General Data Protection Regulation\)](#) – key principles of data protection
- [EU AI Act](#) – emerging framework for regulating AI systems

These references support discussions on privacy, ethics, and responsible AI use.

12.5 Ready-to-use presentation tools

Teachers can quickly prepare or adapt materials using:

- [Canva](#) – templates for presentations, worksheets, and visuals
- Microsoft PowerPoint – ready-made slide templates and lesson structures
- [Google Slides](#) – collaborative presentation creation
- AI-assisted tools such as [NotebookLM](#) or similar AI “slide builders”, which can help draft outlines or speaker notes based on course materials (to be reviewed and adapted by the teacher).

These tools help save preparation time and support visually engaging lessons.

13. Self-study Guidance for IVET Teachers

This material is designed so that teachers can explore and use it independently, at their own pace. Whether preparing for a specific lesson or building general confidence in AI topics, the following guidance can help structure the process.

13.1 Recommended reading order

To get the most value from the material, the following order is suggested:

1. Start with the introduction and learning objectives to understand the overall purpose
2. Review the overview of the MOOC structure to see how the content is organised
3. Go through the key AI concepts section to build confidence with terminology
4. Explore the use cases and classroom activities for practical application
5. Review assessment and integration sections to support lesson planning

This approach helps move from basic understanding to practical classroom use.

13.2 Estimated preparation time

Teachers can adapt the depth of preparation depending on their needs:

- **Quick preparation (1–2 hours):** review key concepts and select one or two activities
- **Standard preparation (3–5 hours):** explore modules, activities, and assessment ideas
- **In-depth preparation (6+ hours):** review the full MOOC, plan integration, and adapt materials

13.3 Reflection questions for teachers

To support effective use of the MOOC, teachers can reflect on the following:

- How can this MOOC support your learners in your subject area?
- Which topics or units are most relevant for your classroom?
- Which activities would work best with your students?
- How confident do you feel explaining AI concepts in simple terms?
- What support might your students need when working with this content?
- How can you connect these topics to real-life situations familiar to your students?

13.4 Practical tips for independent use

- start small by using one unit or activity before integrating more content
- focus on understanding concepts rather than technical details

- adapt examples to your students' interests and vocational context
- use available tools and resources to support explanations
- reflect after each lesson on what worked well and what could be improved

14. Appendices - Ready-to-Use Workplace Templates

14.1 Appendix A: Bloom's Taxonomy

Level	Key Question Answered	Example Action Verbs	Typical Assessment
1 — Remember	Can students recall information?	define, identify, list, name, recall, recognise	Quiz, matching exercise, flashcards
2 — Understand	Can students explain ideas?	describe, explain, summarise, classify, paraphrase	Short answer, concept map, oral check
3 — Apply	Can students use knowledge?	use, demonstrate, implement, solve, illustrate	Worksheet, scenario task, chatbot audit
4 — Analyse	Can students break down concepts?	compare, differentiate, examine, organise, deconstruct	Case study analysis, comparison table
5 — Evaluate	Can students judge or critique?	assess, justify, critique, defend, recommend	Debate, presentation, benefit-risk matrix
6 — Create	Can students produce something new?	design, develop, construct, compose, produce	Project proposal, portfolio, strategy document

14.2 Appendix B: Example of a Constructive Alignment Table

Learning Objective	Classroom Activity	Assessment Method
Explain key AI concepts in market research	Teacher-led explanation + class discussion	Quiz / short oral check
Identify AI tools used in market research	Use-case analysis (e.g. analysing customer reviews)	Short assignment / worksheet
Analyse AI-supported market research scenarios	Group work on case study (e.g. trend identification)	Group presentation / rubric
Evaluate ethical implications of AI use	Debate or role-play (e.g. data privacy scenario)	Presentation / peer feedback
Apply AI concepts to simple tasks	Guided practical exercise (e.g. interpreting sample data)	Practical task / portfolio