

## VETech TOOLKIT

# INTRODUCTION SHEET

**Name of the tool:** Artificial intelligence / AI

**Specific tool:** ChatGPT

**Level:** Beginner

**Target group:** VET trainers

**General description of the tool:** Artificial intelligence (shortly AI) is a technological revolution. It is a collection of computer systems and programs capable of functioning in ways similar to human thinking.

This means that AI systems can:

- learn from information, examples, and patterns (machine learning),
- recognize patterns (e.g., in images or texts),
- make decisions (based on data),
- solve problems and tasks, and
- interpret and use human language (e.g., having a conversation through a chatbot like ChatGPT).

AI systems are built on large databases and learning, enabling them to continuously improve and become more accurate. This process requires significant time and financial resources.

Artificial intelligence can complete tasks in minutes that once took hours. In business, this creates a competitive advantage that is invaluable in today's world. Beyond the workplace, AI can support individuals in learning, travel planning, research, creativity, building diet/workout plans, composing music, providing inspiration across topics, interpreting medical results, and much more—the possibilities are endless.

Within the next five years, artificial intelligence will impact 40% of jobs: some professions will disappear, some will transform, and entirely new ones will emerge.

Ignoring AI is no longer an option, as it already permeates nearly every aspect of life. It is advancing rapidly, becoming increasingly affordable and accurate.

### How can we make AI our ally?

- ✓ How can it support both private and business life?
- ✓ How can we train and instruct it properly?
- ✓ How can we know if the information it provides is accurate?
- ✓ What should we do when it gives incorrect information?

You don't need to be an expert to use artificial intelligence—but you do need to know how to communicate with it effectively. The way you phrase your question, request, or instruction (the prompt) is a critical factor.

### Main advantages of AI:

- Speed – AI can perform tasks in seconds that would take humans hours or even days.
- 24/7 availability.
- Cost savings – by reducing the need for human working hours and resources, it lowers costs (whether in business or everyday tasks).
- Personalization – it can be tailored to support both personal and business goals.
- Convenience – it works with a vast pool of information, helping decision-making in both private and professional life.

### Main challenges of AI:

- It is not infallible and does not “know” in the general sense—it draws conclusions and generates answers based on learned patterns and input data.
- Its decision-making process is often a “black box” - we don't fully understand how or why it provides certain answers, making fairness difficult to assess (e.g., loan applications, grant evaluations, medical misdiagnoses). This is why the EU AI Act requires human oversight for high-risk AI systems.
- It can generate anything humans can imagine—including unethical outputs (e.g., deepfakes: artificially generated images or voices).
- It may lead to the partial or complete disappearance of certain professions.
- It can be misused, also creating security risks.

In the context of teaching and training, AI tools like ChatGPT can assist educators in lesson planning, content generation, assessment creation, and providing personalized learning support. For VET trainers, who often work under time pressure and with diverse learner needs, AI offers an opportunity to enhance teaching quality and efficiency.

AI is not only for technical experts—it is becoming accessible to all professionals and learning how to communicate with these tools (prompt engineering) is essential. Like any technology, AI has strengths and limitations, and using it responsibly is key to its successful integration in the educational process.

This online training material is designed to help VET trainers and educators effectively integrate artificial intelligence (in this case ChatGPT) into their daily workflows. By doing so, they can catch up with digital developments and strengthen their skills and teaching competences.

### Relevance of the tool for the target group:

VET trainers can greatly benefit from using AI, particularly tools like ChatGPT, which streamline administrative and teaching tasks, improve engagement, and personalize learning. With limited time and resources, trainers can leverage ChatGPT to:

- **Draft training materials, lesson plans, and assessments:** For example, trainers can input a topic like "Basic Electrical Safety" and receive a full lesson plan with learning objectives, activities, and a short quiz.
- **Rephrase or adapt content to different learning levels:** ChatGPT can simplify complex instructions for entry-level learners or make them more challenging for advanced students.
- **Create simulations or scenarios for practical exercises:** Trainers teaching customer service could ask ChatGPT to generate realistic dialogue for role-playing exercises.
- **Generate ideas for activities, projects, or discussion topics:** For instance, it can suggest interactive workshop ideas for vocational fields like plumbing or graphic design.
- **Translate content and support language learning:** A Bulgarian trainer can quickly get English translations of technical terms or simplify texts for multilingual learners.
- **Summarize long texts or technical manuals:** When dealing with dense materials, trainers can prompt ChatGPT to condense key points into digestible summaries.
- **Provide immediate feedback to students in low-stakes tasks:** Students can draft short answers or reports and use ChatGPT for preliminary feedback on grammar, coherence, or clarity.
- **Assist in tracking learner progress and identifying gaps:** Trainers can ask ChatGPT for suggestions on how to monitor common learner struggles based on provided feedback patterns.

For trainers who are not IT experts, ChatGPT serves as an intuitive and easy-to-use assistant that enhances productivity. However, trainers must apply pedagogical judgment, verifying the output and ensuring it aligns with curriculum goals. Prompting skills and digital literacy are thus essential competencies to develop.

**The most common forms/applications/solutions of the tool (1500-2000 characters with spaces): (list, e.g. ChatGPT, Gemini etc.):**

**AI tools** can significantly support VET trainers in various aspects of their professional tasks:

- **Drafting training materials, lesson plans, and assessments** - generate course outlines, quizzes, and assignments based on learning objectives or keywords:
  - ✓ **ChatGPT**
  - ✓ **Google Gemini**
  - ✓ **Eduaide.AI**
- **Generating visual aids and multimedia content** - help create AI-generated images, infographics, and short videos tailored to vocational subjects:
  - ✓ **Canva Magic Media**
  - ✓ **Adobe Firefly**
  - ✓ **Pictory**
  - ✓ **DALL-E**
- **Personalizing learning paths** - Adaptive learning platforms use AI to suggest personalized content based on learners' progress and needs:
  - ✓ **Socratic by Google**
  - ✓ **Khanmigo**
- **Grading and providing feedback** – AI tools can help automate grading of open-ended responses and give students real-time feedback on written work:
  - ✓ **Gradescope**
  - ✓ **Turnitin Draft Coach**
- **Speech-to-text and transcription support** – these applications can convert lectures or student input into editable, searchable text:
  - ✓ **Otter.ai**
  - ✓ **Whisper by OpenAI**
  - ✓ **Microsoft 365 Dictate**
- **Language translation and support for multilingual learners** – tools that help trainers reach linguistically diverse learners with better accuracy and tone than traditional machine translation:
  - ✓ **DeepL Translator**
  - ✓ **Google Translate**
  - ✓ **Microsoft Translator**
- **Administrative task automation** - AI-powered assistants can support time management, scheduling, and documentation in VET administration and educational contexts:
  - ✓ **Motion,**
  - ✓ **Notion AI,**
  - ✓ **Trello with AI plug-ins**

These tools offer practical, user-friendly entry points for VET trainers seeking to improve both pedagogy and productivity.

## General presentation of ChatGPT as AI tool: (1500-2000 character with spaces)

### What is it? For what to use it? Advantages and disadvantages

**Description:** Large Language Models (LLMs) are a type of artificial intelligence (AI) capable of understanding, generating, and processing text.

The first version, **GPT (2018)**, with **117 million parameters**, could recognize the structure of text.

**GPT-2 (2019)**, with **1.5 billion parameters**, was able to understand text content.

**GPT-3 (2020)**, with **175 billion parameters** (e.g., ChatGPT), enabled real conversation.

**GPT-4 (2023)** now has **1.75 trillion parameters**.

**GPT-5 (2025)** – now in use with huge potential.

The abbreviation “**GPT**” stands for *Generative Pre-trained Transformer*:

- **Generative** – capable of creating new text, not just repeating existing content.
- **Pre-trained** – trained on massive amounts of text data beforehand.
- **Transformer** – effective at recognizing language patterns.

**ChatGPT is an artificial intelligence-based language model.** Its essence lies in communicating with humans in natural language and being able to interpret, generate, explain, or creatively transform text. Its operation is based on recognizing statistical patterns. It does not “know” in the classical human sense, but it can predict which words or expressions are likely to follow in a given textual context.

**Applications:** Thanks to its vast training data, it can perform a wide variety of tasks, including consulting, creative writing, programming, assisting with language learning, summarizing texts, translation, story generation, market research, image generation, grant writing, minute-taking, and more.

#### Advantages:

- Fast
- Multilingual
- Versatile
- Available 24/7
- Easy to use
- Learns and improves rapidly
- Free version available (registration recommended)

#### Disadvantages:

- Often provides incorrect or inaccurate information
- Struggles with very specific, context-dependent situations
- Can “hallucinate” (generate fictional information)
- Its responses are based on trained data and are not always updated in real time.
- Knowing proper prompt techniques is necessary for effective use.
- It does not replace human expertise.
- Sensitive information should not be shared with it.

### Relevance of ChatGPT as AI tool for the target group:

ChatGPT is a versatile AI tool that can assist VET trainers across various aspects of their teaching and administrative responsibilities. Its ease of use, conversational interface, and broad functionality make it especially valuable for non-technical users seeking to integrate AI into daily practice.

For **lesson planning and curriculum design**, trainers can ask ChatGPT to generate structured lesson plans, suggest learning outcomes aligned with EQF levels, or adapt content to different learner profiles.

In **assessment development**, ChatGPT can draft multiple-choice quizzes, open-ended questions, or grading rubrics based on specific modules or units taught in vocational schools.

When preparing **multilingual materials**, ChatGPT can assist with high-quality translations, summaries, or explanations in simplified language for learners with diverse linguistic backgrounds.

ChatGPT also supports the creation of **interactive learning activities** by generating case studies, role-play scenarios, or project prompts relevant to specific trades or professional contexts.

For **professional communication**, VET trainers can use it to draft emails, letters to parents or employers, and workshop invitations, improving efficiency and tone.

In terms of **continuous professional development**, ChatGPT can act as a coach - explaining new teaching methods, summarizing academic articles, or offering reflection questions after lessons.

Moreover, for trainers working in **low-resource or rural settings**, ChatGPT can serve as an always-available assistant that helps bridge gaps in instructional support and content availability.

Overall, ChatGPT empowers VET trainers to save time, enhance their creativity, and tailor their teaching to better meet learner needs. By integrating ChatGPT into their workflow, VET trainers can focus more on interactive, student-centered instruction and less on repetitive admin tasks. Used wisely, it becomes a valuable component of modern vocational education.