

## VETech TOOLKIT

# INTRODUCTION SHEET

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

**Specific tool:** ChatGPT

**Level:** Beginner

**Target group:** VET STUDENTS

**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 disadvantages 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.

### Responsible use of AI

- Use AI as learning support, not as a replacement for independent thinking.
- Always verify important information using reliable sources.
- Do not share sensitive personal or workplace data in AI tools.

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

Artificial intelligence tools, and especially language-based systems such as ChatGPT, are highly relevant for VET students, as they support learning, skill development, and professional preparation in an increasingly digital working environment. In modern vocational education, students are expected not only to master technical skills, but also to demonstrate digital competence, adaptability, and the ability to use innovative tools responsibly. AI technologies contribute significantly to the development of these competencies.

For VET students, artificial intelligence functions as a learning assistant that supports understanding, practice, and independent study. Through AI-powered tools, students can receive explanations of complex vocational concepts, generate summaries of learning materials, prepare for examinations, and receive guidance on assignments and projects. This promotes self-directed learning and strengthens problem-solving skills, which are essential in vocational training.

Furthermore, AI tools help students improve their communication and professional documentation skills. ChatGPT can support the preparation of reports, presentations, internship documentation, and technical descriptions. By using such tools, students learn how to structure information clearly and present it in a professional manner, preparing them for workplace communication.

Artificial intelligence also enhances creativity and innovation in vocational education. Students can use AI for idea generation, project planning, and content creation, encouraging active participation and experimentation. At the same time, they develop critical thinking skills by evaluating AI-generated information, checking sources, and correcting inaccuracies.

In addition, early exposure to AI technologies increases students' employability and adaptability. Many vocational sectors already rely on digital systems, automation, and intelligent tools. Familiarity with AI prepares students to integrate more easily into modern workplaces and to respond effectively to technological change.

Finally, responsible use of artificial intelligence promotes digital ethics and awareness. VET students learn to respect data protection rules, avoid plagiarism, and apply AI tools in a transparent and fair manner. Overall, artificial intelligence represents a strategic educational resource that empowers VET students, strengthens their professional profiles, and supports lifelong learning in a digital economy.

### The most common forms/applications/solutions of the tool:

Artificial intelligence tools used in digital content creation and learning environments are increasingly important for VET students, as they support both academic development and professional preparation. Among the most widely used applications, language-based and creative AI platforms play a central role due to their accessibility, flexibility, and relevance to vocational education.

**ChatGPT** is one of the most used AI tools in educational contexts. It supports VET students in understanding technical concepts, preparing assignments, generating summaries, improving professional language skills, and structuring reports and presentations. Through interactive dialogue, students can clarify doubts, explore new ideas, and develop problem-solving strategies related to their vocational field.

**Google Gemini (formerly Bard)** provides similar functions, offering real-time information retrieval, content generation, and learning assistance. It is particularly useful for research activities, project preparation, and data analysis, helping students connect theoretical knowledge with practical applications.

**Canva AI** integrates artificial intelligence into visual content creation. Features such as automatic design suggestions, text generation, background removal, and image creation enable students to produce professional learning materials, portfolios, and presentations efficiently. This supports creativity and visual communication in vocational training.

**Adobe Firefly and Adobe Express AI** tools assist in generating images, graphics, and visual effects. These applications are useful for students in creative, technical, and commercial fields who need to design promotional or instructional materials.

**Grammarly AI** and similar writing assistants help students improve grammar, clarity, and style in reports, project documentation, and professional correspondence, strengthening written communication skills.

**Notion AI** supports digital organization, note-taking, and project management. It helps students structure learning materials, plan tasks, and document progress during training projects and internships.

Together, these AI-based applications form a comprehensive digital ecosystem that supports learning, creativity, collaboration, and professional development. By becoming familiar with these tools, VET students enhance their digital competence, adaptability, and employability, preparing them for participation in technologically advanced workplaces and lifelong learning environments.

## General presentation of ChatGPT as AI tool:

### 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)

#### Challenges:

- 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 represents a highly relevant artificial intelligence tool for students in vocational education and training (VET), as it supports both academic learning and professional skill development within a rapidly evolving digital landscape. In contemporary vocational contexts, learners are expected not only to acquire technical expertise, but also to demonstrate digital literacy, critical thinking, and adaptability. ChatGPT contributes directly to the development of these transversal competencies.

For VET students, ChatGPT functions as an accessible learning assistant. It can provide structured explanations of complex technical concepts, generate examples related to specific vocational sectors, and assist in summarizing theoretical material. This facilitates deeper understanding and supports self-directed learning, enabling students to study more independently and efficiently. When preparing for examinations or assessments, learners can use ChatGPT to create practice questions, review key topics, and clarify misunderstandings.

In addition, ChatGPT supports professional communication and documentation skills. VET students can use the tool to structure reports, draft internship reflections, prepare presentations, or refine professional emails. Through guided interaction, they learn how to formulate clear instructions (prompts), evaluate the quality of AI-generated responses, and revise content. This process strengthens analytical skills and reinforces responsible digital practices.

ChatGPT also promotes creativity and innovation. Students can generate ideas for projects, explore alternative solutions to vocational challenges, and experiment with different formats of written communication. Such engagement encourages active participation and problem-solving, which are essential in vocational professions.

Importantly, the pedagogical value of ChatGPT lies in its integration within a framework of ethical and critical use. VET students must learn to verify information, recognize potential inaccuracies or biases, and respect data protection and academic integrity principles. In this way, ChatGPT becomes not a substitute for learning, but a supportive instrument that enhances cognitive processes.

Overall, ChatGPT strengthens digital competence, autonomy, and employability among VET students, aligning vocational education with the demands of technologically advanced workplaces and lifelong learning environments.