# Generative AI for Health & Safety Leaders

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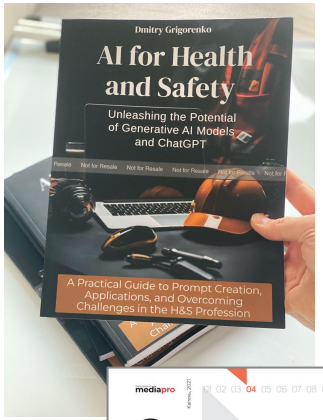
# About the Speaker – Dmitry Grigorenko

- **Co-Founder**, *European Society of Occupational Safety & Health (2,600+ members)*
- **Former Global H&S Director**, *Metinvest Holding*
  - Led the company to win *"Change Programme of the Year"* at the **IIRSM Risk Excellence Awards 2020**





**Experience with Generative AI in Health & Safety:**

- Developed a working AI model for a Master's thesis (2006, Ukraine)
- Immersed in generative AI post-ChatGPT release through daily study and hands-on experimentation
- Customized AI tools for the unique needs of health and safety professionals
- **Published** a book on AI applications in H&S (2023, Amazon Kindle)
- Delivered AI training to over **2,000 H&S professionals** across various formats
- Currently leading a **Generative AI training initiative** for the **EU WHS team at Amazon**

# Today’s Learning Journey

- What generative AI is — and why it matters for safety professionals
- How to build your AI skills: from first steps to advanced tasks
- How to write better prompts to get useful, job-ready output
- What *not* to do — common traps like AI hallucinations
- Real examples: CPD reflections, SOP simplification, coaching
- Your next steps: how to integrate AI into daily work

# What is Generative AI?

- **Artificial Intelligence (AI)** mimics how the human brain processes information.
- It "learns" by adjusting connections between virtual neurons — just like a simplified brain.
- **Generative AI** creates new content: text, images, code, and more.
- **Large Language Models (LLMs)** like ChatGPT predict the next word based on context — not rules.
- AI responses are not step-by-step logic — they are generated instantly from learned patterns.
- AI has **no emotions or awareness** — it’s a tool, not a thinker.

# Demonstrating AI Capabilities: From Simple to Complex Tasks

**1. Simple Prompt – Basic Content Generation**

*"List five key benefits of regular safety audits in the workplace."*

**2. Intermediate Prompt – Contextualized Summary**

*"Summarize the key safety incidents from this monthly report and suggest three preventative measures.*
*[Paste incident report text here]"*

**3. Advanced Prompt – Structured, High-Value Output**

*"Using the notes below, draft a presentation script for a safety leadership meeting. Emphasize improvement areas and align with the tone used in this previous script: [insert example].*
*Notes:*
- *Incident frequency dropped by 12%*
- *Near misses increased slightly*
- *3 new initiatives launched (list provided)"*

Link to PartyRock App:

# Dunning-Kruger Effect in Learning Generative AI

*(Insights from real training experience)*

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**Stage 1: Initial Overconfidence**

- Getting answers from AI feels easy
- Users can't yet judge the quality of results
- Overestimation leads to inflated confidence

**Stage 2: Drop in Interest**

- Responses begin to feel generic or unhelpful
- Many stop exploring AI further, thinking it's not useful

**Stage 3: Skill Building**

- With guided practice, users learn to craft better prompts
- AI becomes a tool for completing real tasks

**Stage 4: Competence & Stability**

- Productivity improves noticeably
- Users reach a stable level of quality and confidence in using AI effectively

# Steps to Building AI Skills

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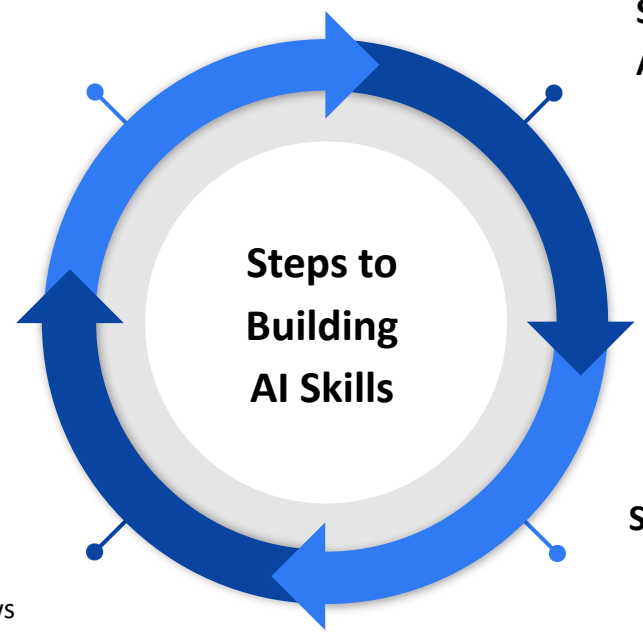
### Step 1: Learn to Communicate with AI

- Understand what AI is and how it works
- Practice **basic prompting** techniques




### Step 2: Explore & Experiment with Applications

- Start with simple, well-known tasks
- Gain hands-on experience to discover where AI adds value
- **Expand your toolkit** by experimenting across different work scenarios

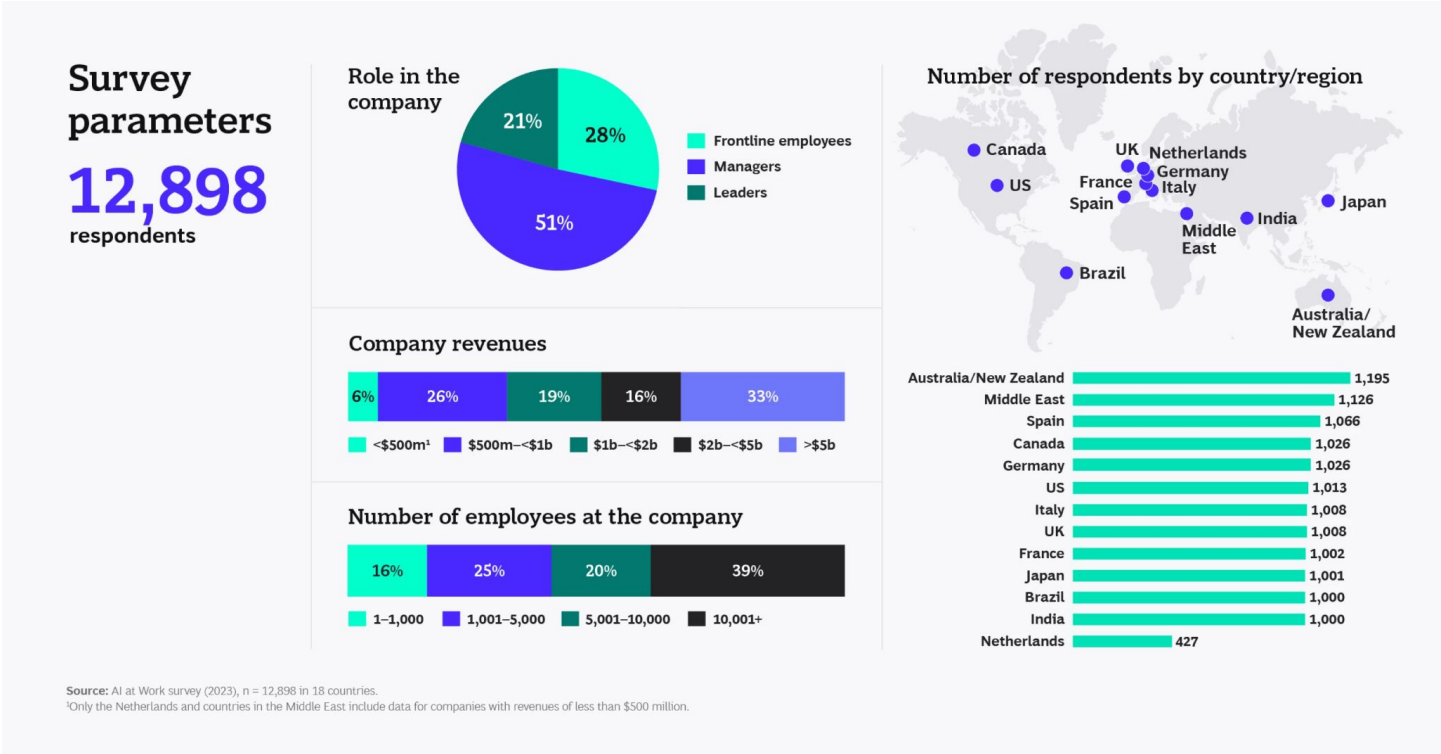
### Step 4: Scale AI Across Your Team

- Integrate AI tools into daily workflows
- Support wider adoption to enhance **team performance**

### Step 3: Build Practical Skill

- Develop an **intuitive feel** for how AI responds
- Improve prompt quality to boost productivity and results

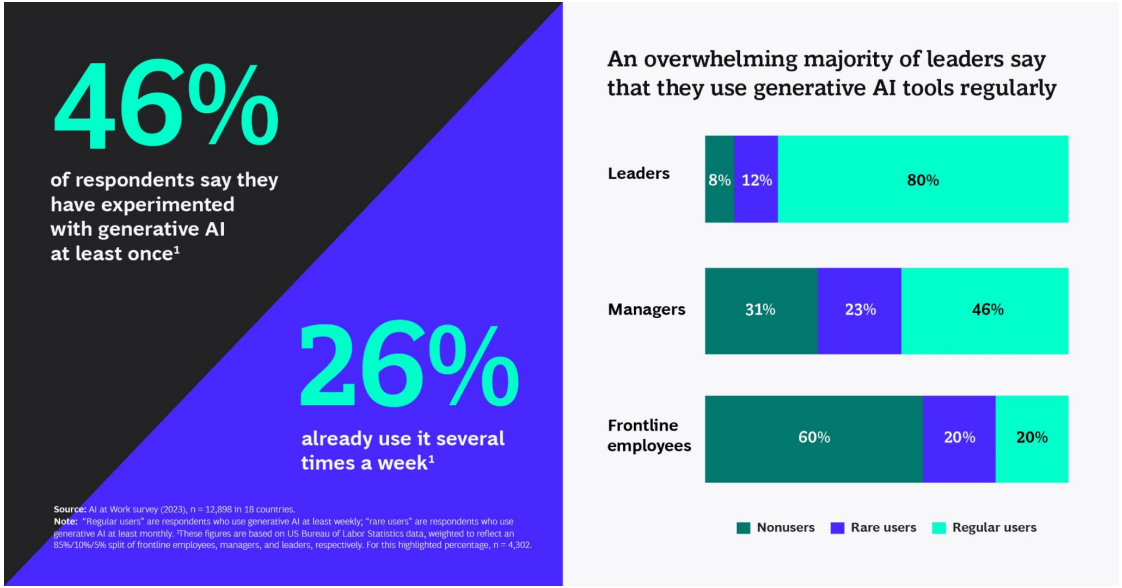
# 2023 Perspective: The Early View on AI in the Workplace




*The link to full BCG report:* https://www.bcg.com/publications/2023/what-people-are-saying-about-ai-at-work

# AI at Work 2023: What People Are Saying

- **80% of leaders say that they use generative AI regularly.**
- Only 20% of frontline employees say that they do so.

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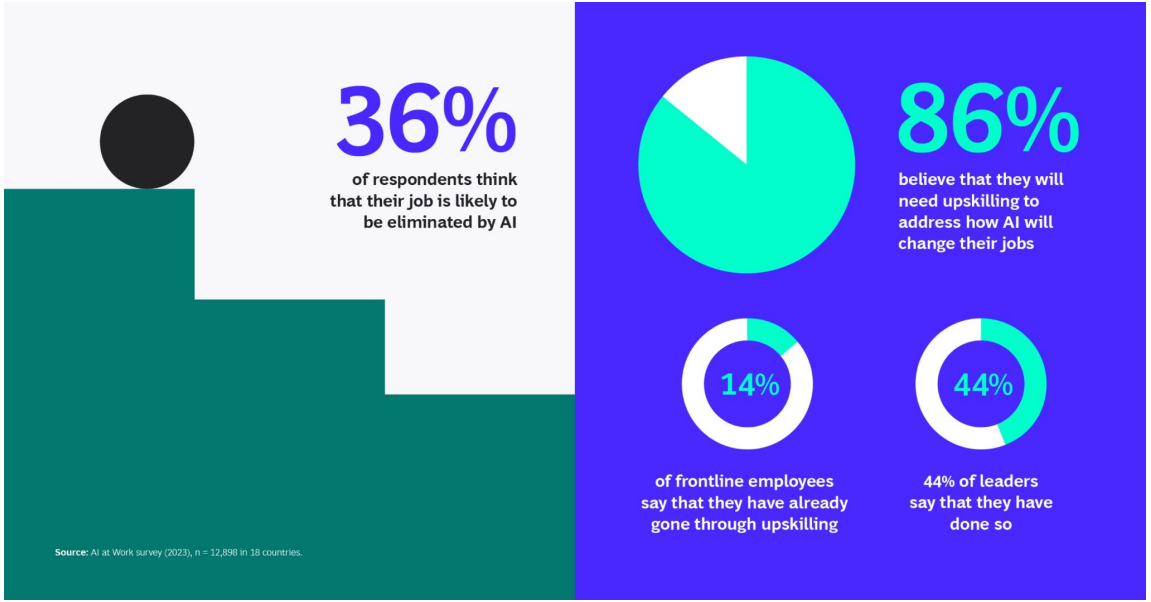
# AI at Work 2023: What People Are Saying

- **44% of leaders** say that they have **received training** to sharpen their skills and stay relevant.
- Only **14% of front-line employees** say that they have received similar training.

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# 2024 Update: The Gap Remains — Most Companies Still Struggle to Get Value from AI

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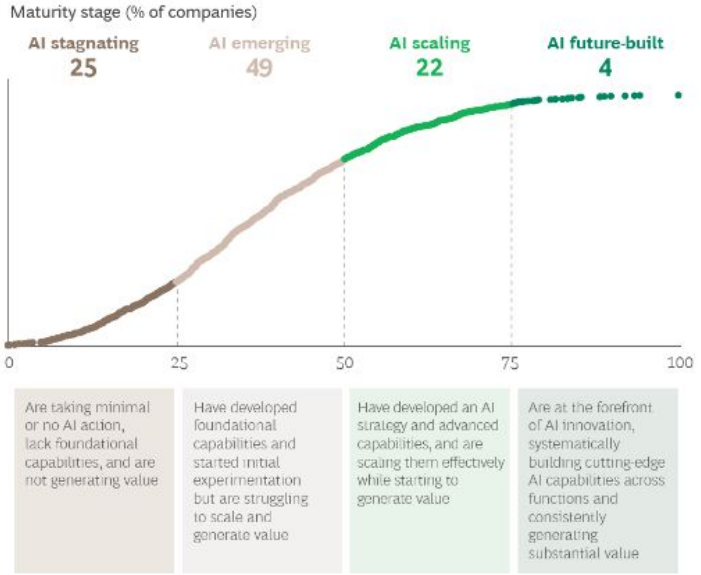
**BCG Global Study (Oct 2024) – 1,000+ companies surveyed:**

- **Only 26%** have moved beyond pilots to generate real value
- Just **4%** are scaling AI with cutting-edge capabilities
- **74%** remain stuck in early-stage experimentation
- The majority of value (62%) is created in **core operations**, not just support roles
- Top-performing companies see:
  - **+50% revenue growth**
  - **+60% higher shareholder returns**
  - **+40% return on invested capital**




*Source: BCG Build for the Future 2024 Global Study (merged with DAI): https://web-assets.bcg.com/a5/37/be4ddf26420e95aa7107a35aae8d/bcg-wheres-the-value-in-ai.pdf*

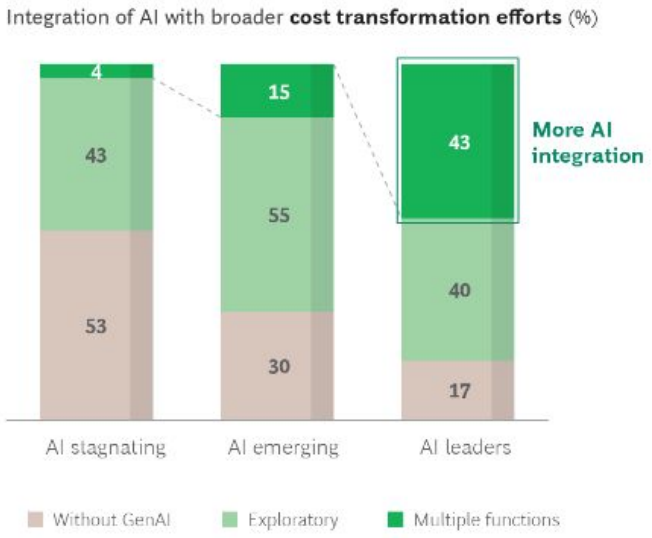
# What High-Performing AI Leaders Do Differently

**BCG's 10-20-70 model for AI success:**

- **10%** focus on algorithms
- **20%** on tech + data
- **70%** on **people, workflows, and adoption**

**Leaders also:**

- Target **fewer, high-impact use cases**
- Prioritize AI in both **core and support functions**
- Invest **twice as much** in AI training and scaling
- Move fast on **generative AI adoption**




✅ **Value comes not from experimenting with AI, but embedding it into real work.**

*Source: BCG Build for the Future 2024 Global Study (merged with DAI): https://web-assets.bcg.com/a5/37/be4ddf26420e95aa7107a35aae8d/bcg-wheres-the-value-in-ai.pdf*

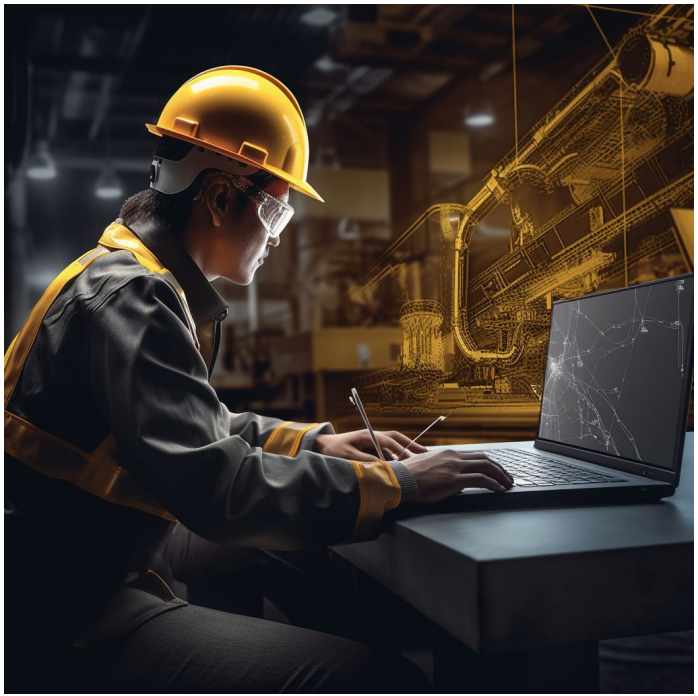
# How to Talk to AI
## and Get What You Need

# Introduction to Prompt Engineering

- A **prompt** is the instruction or input you give to an AI system.
- It sets the **context** and guides the AI toward your desired outcome.
- The **quality of your prompt** directly impacts the usefulness of the response.
- Effective prompts are:
  - **Clear** – unambiguous and to the point
  - **Contextual** – provide relevant background or data
  - **Specific** – define what format, tone, or details you expect
- Prompting is a **skill** — it often takes several iterations to get the best result.

# Key Principles for Effective Prompts

- **Clarity**
  Make your request simple and unambiguous. Clear prompts lead to clearer answers.
- **Context**
  Provide relevant background so the AI understands the task and its purpose.
- **Specificity**
  Be precise about what you want — format, tone, length, structure, or style.
- **Iteration** *(Optional but powerful)*
  Be ready to refine your prompt. Most great results come after a few tries.



# Key Components of an Effective Prompt

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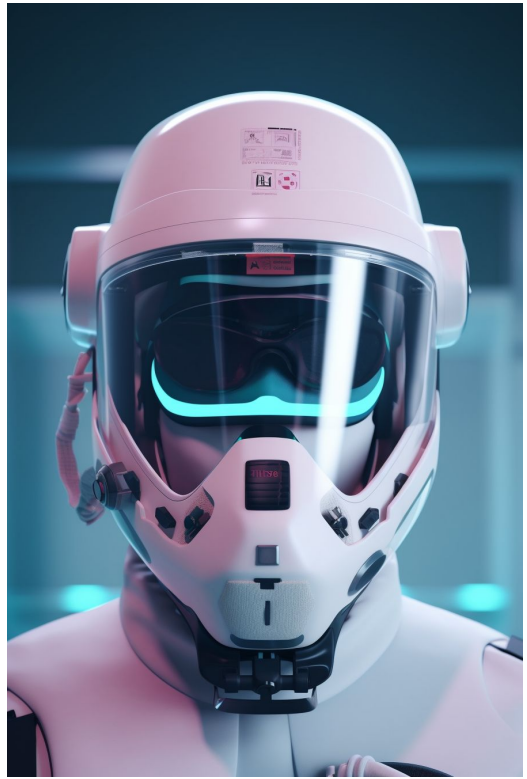
1. **Instruction or Task**
   – What do you want the AI to do?
2. **Goal or Outcome**
   – What should the final result achieve or look like?
3. **Context or Examples**
   – Provide background info, data, or examples to guide the response.
4. **Role for the AI**
   – Define who or what the AI is acting as (e.g., safety officer, writer, analyst).
5. **Specifications**
   – Set style, tone, format, length, or structure expectations.



## 📝 Notes:

- Not all components are required — use only what fits your task.
- Order doesn't matter, but clarity does.
- Image or design prompts may include visual elements (e.g., color, layout).
- Large models handle complex, detailed prompts; smaller models may need simpler instructions.

# Advanced Prompting Best Practices

- **Check existing tools** before building your own (e.g., PartyRock apps)
- **Structure your prompt clearly** using delimiters:
  - Triple quotes: """Text block"""
  - XML-style tags: <EXAMPLE>...</EXAMPLE>
  - Dashed sections: ---BEGIN--- ... ---END---
- **Specify formatting needs**:
  - Format: bullets, tables, paragraphs
  - Level of detail: summary vs. in-depth
  - Include specific headings if needed
- **Save what works**:
  - Reuse and adapt successful prompt patterns
  - Build a personal or team prompt library

# Example of good prompt
# Task: Convert SOP into simple 10-15 process steps

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**You are an expert in process documentation and simplification. I will provide you with a detailed Standard Operating Procedure (SOP). Your task is to:**

**1. First, read through the entire SOP carefully to understand the complete process flow.**

**2. Then, convert this SOP into 10-15 clear, sequential steps by:**
- **Identifying the core actions and critical decision points**
- **Eliminating redundancies and combining related steps**
- **Maintaining all safety-critical information**
- **Using simple, action-oriented language**
- **Preserving the logical flow of the process**

**3. For each step:**
- **Start with an action verb**
- **Use clear, everyday language instead of technical jargon**
- **Include only essential details**
- **Highlight any critical warnings or safety considerations**
- **Keep to 1-2 sentences per step when possible**

**4. Format your response as follows:**

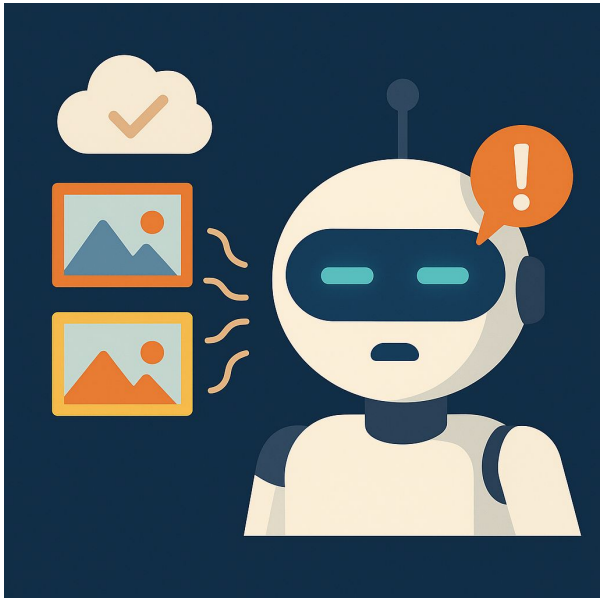
**“””[Process Name]**
**Purpose: [1-2 sentences describing the goal of this process]**
**Steps:**
**1. [Step 1]**
**2. [Step 2]**
**etc.**
**Key Safety Points: [List any critical safety considerations]”””**

**Please maintain the accuracy and integrity of the original procedure while making it more accessible and easier to follow.**

# AI Hallucinations: What They Are and How to Handle Them

## What Is Hallucination in AI?

- A **hallucination** occurs when AI generates content that sounds correct — but is **factually wrong** or **nonsensical**.
- Common in language models, especially when asked to answer confidently without solid data.



## How to Manage Hallucination

- **Verify outputs**: Always cross-check facts and figures.
- **Engineer better prompts**:
  - Ask for **sources**
  - Request the AI to rate **confidence** or flag **uncertainty**

## Example Prompt Addition

- To help the AI be more transparent, add something like this to your prompt:

"**Please include the following in your response:**
– **Confidence level** (e.g., 1–5)
– **Sources** if available
– **Highlight anything that may be a guess or not based on fact**"

# Clever Ways to Make AI Work for You

*Uncommon but useful ways AI can assist with your daily professional tasks.*

# Using AI to Draft IOSH CPD Reflective Statements

- Using AI to assist with preparation of reflective statement summarizing the activity, learnings, and how it can be applied to your work.
- Optional task: categorize the type of CPD activity based on your description.

Prompt for ChatGPT:

Create a reflective statement for me to be used as report of CPD activity to keep it in my profile at professional organisation of occupational health and safety specialists (IOSH). It should of at least 500 characters from the perspective of the learner. The statement should cover how useful this learning has been, how the learner has put it into practice, any strengths or areas for improvement, and any further learning needed to continually grow. Use a professional and reflective tone.
Description of CPD activity: [Activity Description]
Key learning points: [Learning Points]
How this benefits my job role: [Job Benefits]

Link to Partyrock App:

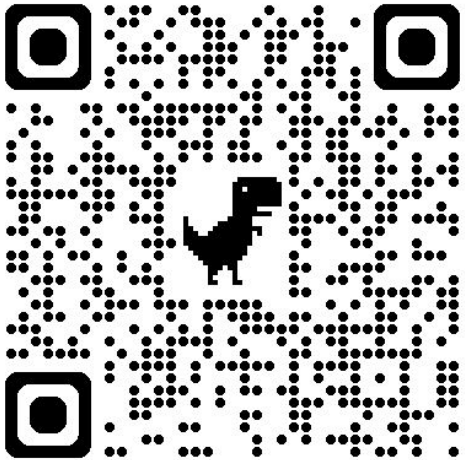
# JobSeeker Cover Letter Composer

- Generate a tailored cover letter for specific job and employer

Prompt example:

I need to create a compelling cover letter that highlights my relevant skills and qualifications for specific job and employer. Please generate it for me using the following information:
[information about the employer]
[your CV]

Link to Partyrock App:



# Generative AI chat as a Coach / Mentor

Beyond generating text or analyzing data, AI can also act as an **interactive guide** for professional growth.

**What makes it different?**

- Not just responding — it can **ask questions**, challenge your thinking, and guide learning.

**How it can support you:**

- Help identify **strengths and improvement areas**
- Assist in creating **personal development plans**
- Enhance **communication and reflection skills**
- Offer ongoing, on-demand feedback

# Your Role in the Future of AI + H&S

**“Only 26% of companies get real value from AI. You can be among them.”**
*(BCG, 2024 Global Study – 1,000+ executives, 59 countries)*

**Why it matters for WHS:**

- AI is already transforming **core business processes**, not just admin tasks
- 70% of AI success depends on **people and workflows**, not just algorithms
- Prompting = learning. Exploring with AI builds long-term **skills and advantage**

## 🚀 What You Can Do Next

- Start with one real task in your H&S role
- Use AI as a partner to reflect, plan, and improve
- Share successes — build capability across your team
- Don't wait for a perfect system — value starts with **action**

***The future belongs to those who learn with AI — not just use it.***

# Thank You for Joining This Session

*Let’s keep the conversation going — because AI isn’t replacing us, it’s empowering us.*

# Let’s Stay Connected

*Join the conversation. Learn. Share. Experiment.*

LinkedIn group
**Generative AI & LLM Club for H&S Professionals**:

My What’sApp: