Hera

Helping Empower Women through Reskilling and Advancement



# Artificial Intelligence Fundamentals

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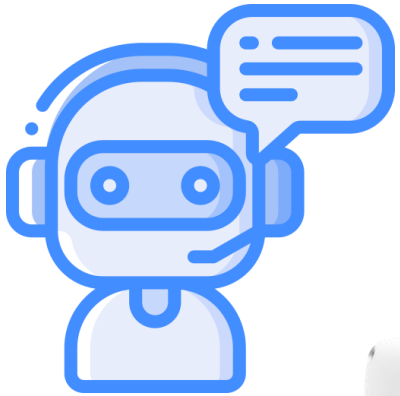
# Why This Workshop?

- Artificial Intelligence (AI) is everywhere
- Most people use it without understanding it
- AI tools are powerful, but they can also do a lot of harm
- Better understanding = better decisions
- AI should not replace thinking

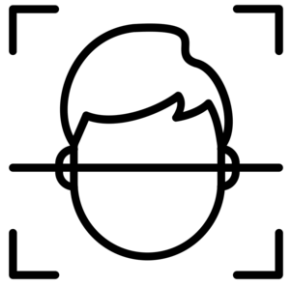


# What AI Actually Is

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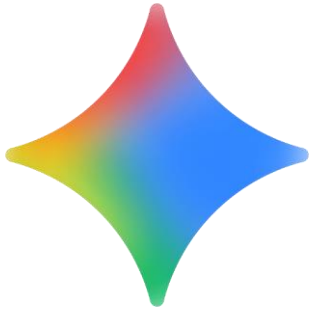
















# Where AI Is NOT the Right TOOL

- Moral decisions
- Legal accountability
- Medical diagnosis without validation
- When data quality is poor
- When explainability is required but missing



# What Is a Large Language Model (LLM)?

- Technology trained on massive text data
- Predicts the next word
- Does not “understand” like humans
- Generates responses based on probability

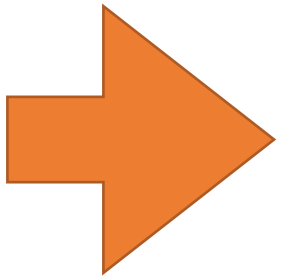


# Choosing the Right LLM for the Task

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## For reasoning & structured analysis

- Drafting an important document
- Making a complex decision
- Working with structured output
- Understanding nuanced topics

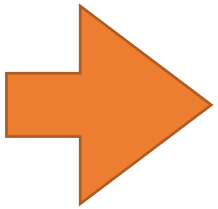


1. GPT-4 class models
2. Claude 3 Opus / Sonnet
3. Gemini Advanced

# Choosing the Right LLM for the Task

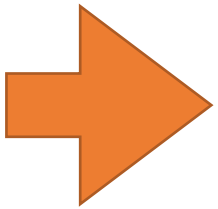
## For coding

- Design and debugging
- Structured code generation
- Design + code from mockup



1. Antropic 4.6
2. DeepSeek-Coder
3. Code-focused open-source models
4. GPT-4 class models

- Live coding support



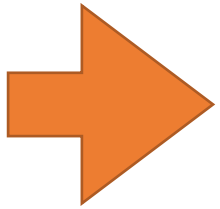
1. Copilot
2. Claude

# Choosing the Right LLM for the Task

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## For speed & lower cost

- Summarization
- Simple drafts
- Simple chat assistants
- Simple data formatting
- Basic content transformation
- Classification and tagging



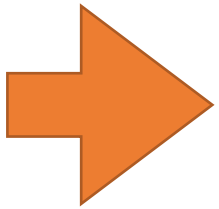
1. GPT-4o mini
2. Claude Haiku
3. Mistral models

# Choosing the Right LLM for the Task

## For privacy / local deployment

### Analysing sensitive internal documents

- Financial reports before public release
- Legal contracts under negotiation
- Patient records in healthcare settings
- HR performance reviews
- Proprietary research data
- Government documents
- Security-related documentation etc.



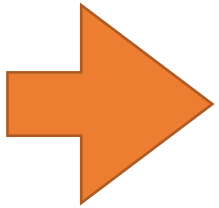
- **Llama 3**
- **Mistral 7B**
- **Qwen models**

# Choosing the Right LLM for the Task

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## For multilingual tasks

- High-quality translation
- Cross-lingual content creation
- Tone and cultural adaptation
- Cross-language summarization
- Multilingual narrative comparison
- Market-specific social media adaptation



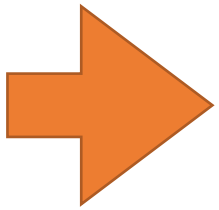
- **DeepL**
- **GPT-4 class models**
- **QweN**
- **Gemini**

# Choosing the Right LLM for the Task

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## Brainstorming

- Workshop & course ideas
- Startup naming & positioning
- Marketing campaign concepts
- Research question generation
- Product feature exploration
- Content & social media ideas



- **Perplexity**
- **GPT-4 class models**



# Question Before Choosing a Model

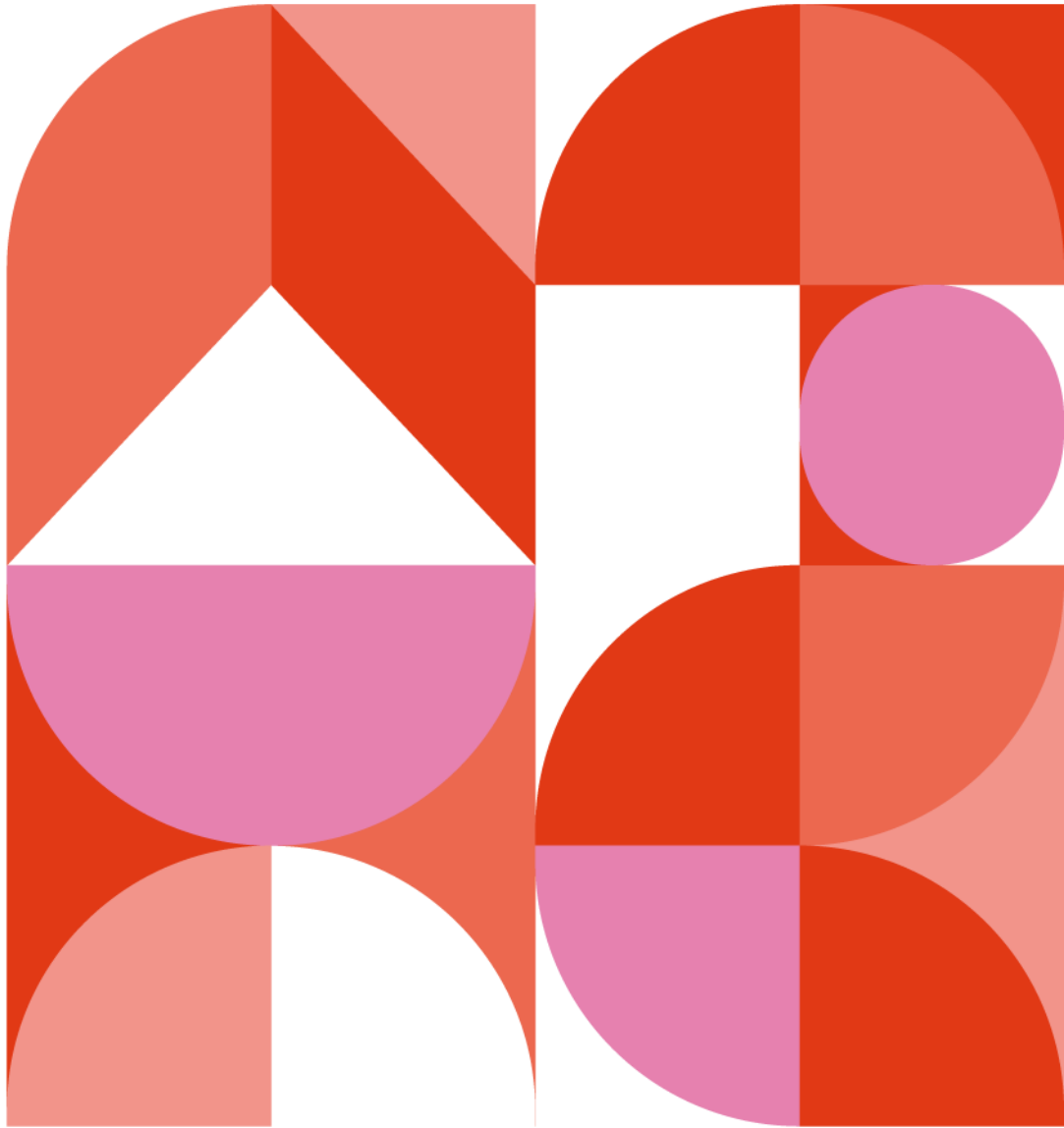
- What level of reasoning is needed?
- How accurate must this be?
- Is privacy important?
- What is the budget?
- Is this high-stakes?

**Model selection is a trade-off decision!!!!**

# Prompt Design Fundamentals

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- Clear role: “Act as a marketing expert”
- Context: What is the situation? Who is this for? Why are you asking
- Constraints: How long should it be? Formal or informal? Bullet points or paragraphs?
- Output format: Do you want a list, a table, a summary, or step-by-step instructions?

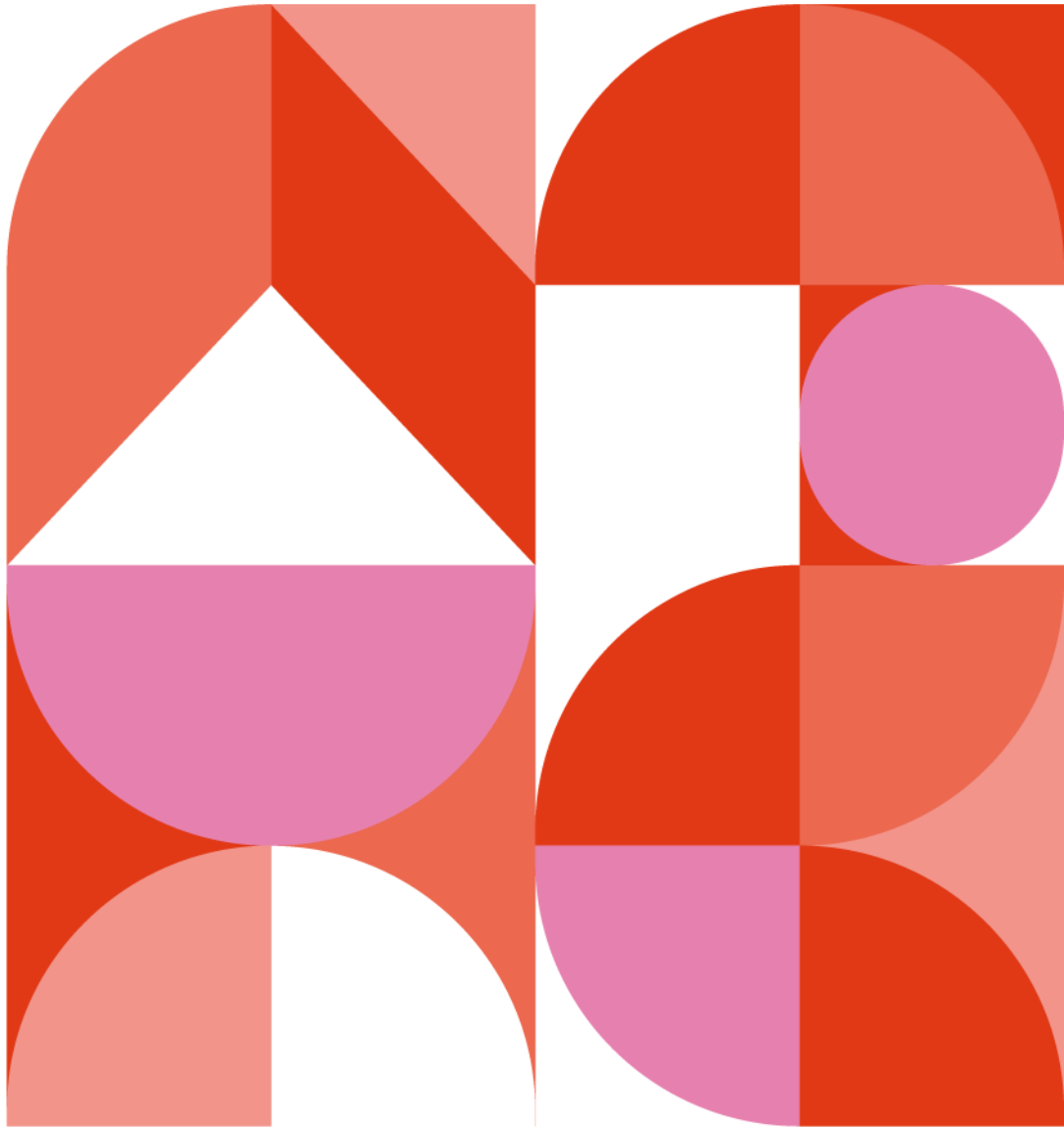


**Role → Task → Context → Constraints → Format**

# Common Prompting Mistakes

- Being vague
- Asking multiple tasks at once
- No output structure
- No constraints
- Blind trust in output

**Be clear, be specific, and review the result critically.**



# Real-life prompts

WEAK: “Write an email.”

**STRONGER**: “Act as a project manager. Write a polite 150-word email to a colleague who missed a deadline. Keep the tone professional but supportive, and clearly state the new deadline.”

WEAK: “Help me plan a trip.”

**SRONGER:** “Suggest a 3-day weekend itinerary in Rome for two adults who enjoy history and good food. Include budget-friendly options and public transport tips.”

WEAK:“Summarize this.”

**STRONGER:** “Summarize this article in 5 bullet points for someone with no background knowledge in social studies. Focus only on the main arguments.”

# Ethical Considerations

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- Bias and fairness
- Job displacement
- Accountability and responsability
- Privacy concerns
- Transparency
- Weaponization

**Ethics is not optional.  It is part of responsible use.**

# The True Cost of AI

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**AI is not “free”,  even when access appears free.**



- Energy consumption
- Water used for data center cooling
- Hardware manufacturing and infrastructure
- Financial cost per request

# Efficiency Mindset

**Use LLMs when:**

- Save meaningful time
- Improve  quality
- Reduce cognitive overload
- Enable something previously impossible

**DON’T use LLMs when:**

- Trivial tasks
- Replacing thinking
- Avoiding learning



# TAKEAWAYS

AI is a tool, not a replacement for thinking

Choose the right model for the task.

Better prompts lead to better results.

Every prompt has a cost.

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# Resources

https://www.womengotech.com/ai-foundations-program/

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