



MONDAY
BASICS:

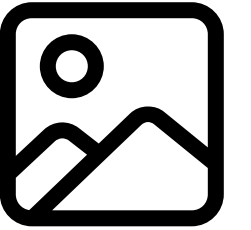
TRAINING & COFFEE

IA PROMPTING BASICS

Barbara Vastenavond



UNIVERSITAT ROVIRA I VIRGILI
Departament d'Enginyeria Química



 ChatGPT



 hedra



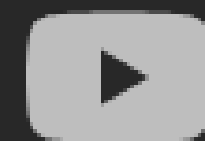
 ElevenLabs



Watch video on YouTube

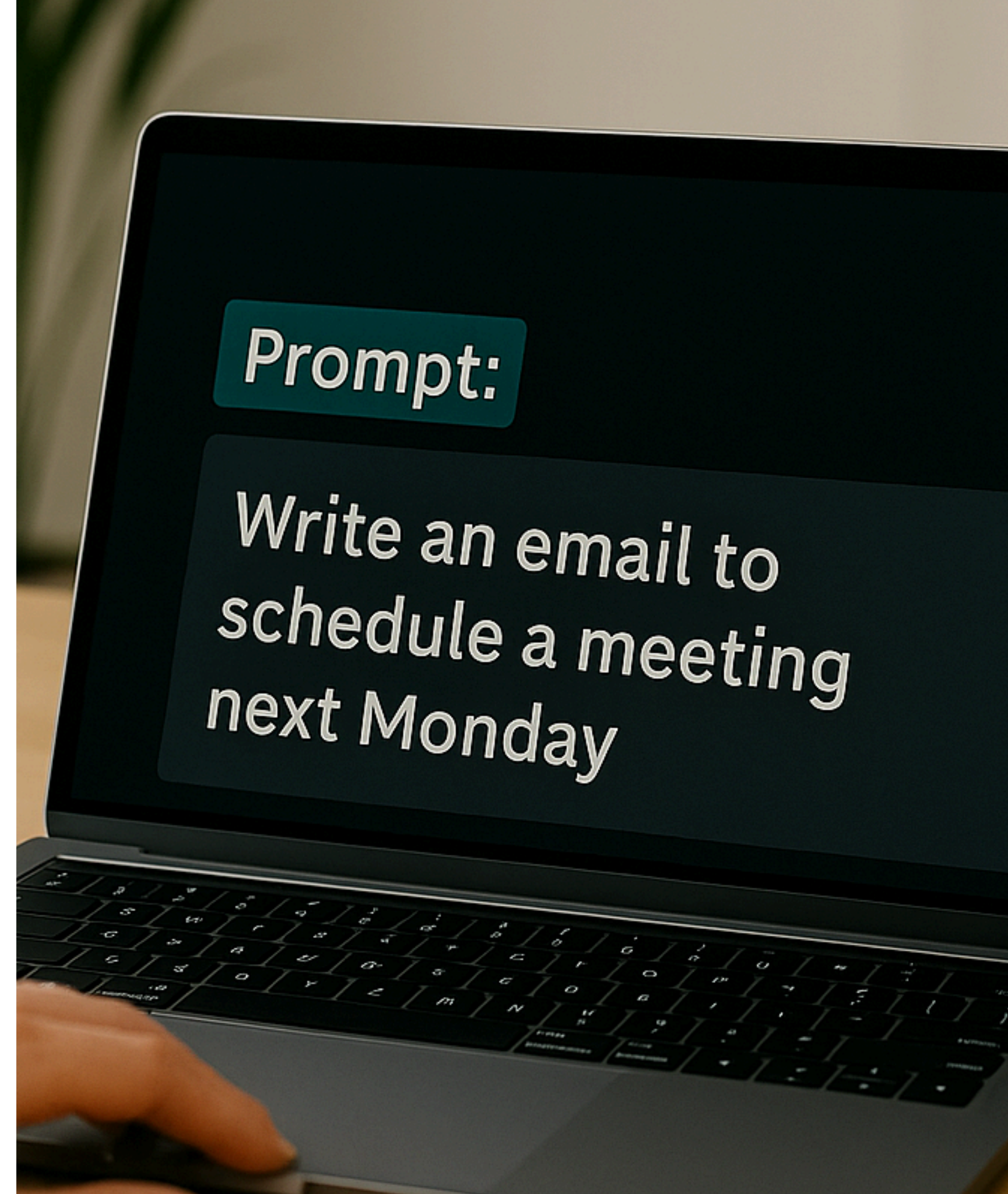
Error 153

Video player configuration error



WHAT IS A PROMPT?

A prompt is a clear instruction or request you give to an AI to guide its response.



WHY IT MATTERS?

clearer prompts → more useful
answers



Write an e-mail

Vague

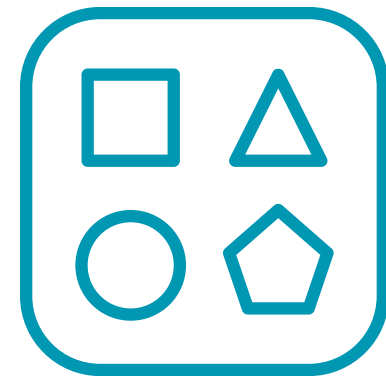


*Write a polite
email to my PhD
supervisor
requesting a
meeting to discuss
feedback on my
thesis chapter*

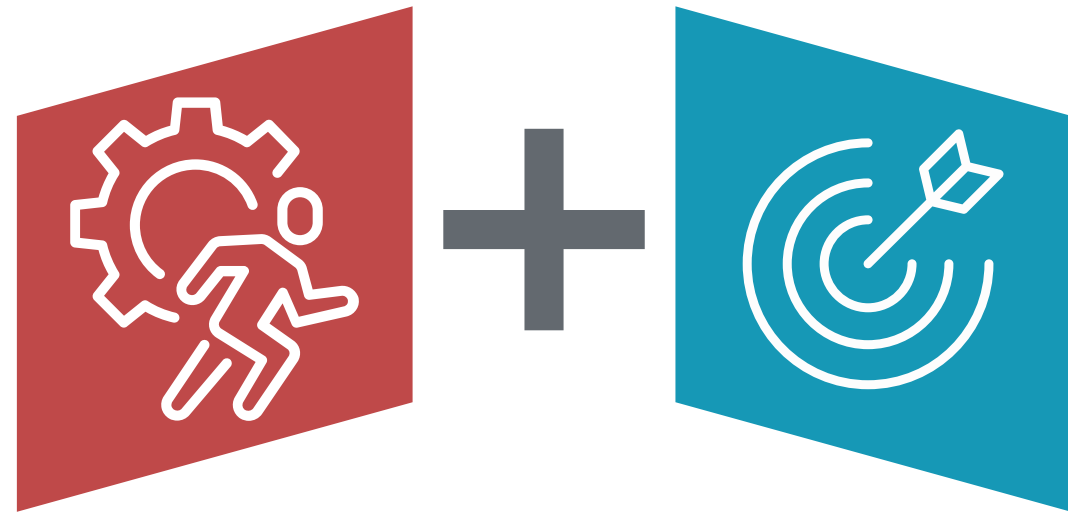
Clear

HOW TO STRUCTURE PROMPTS



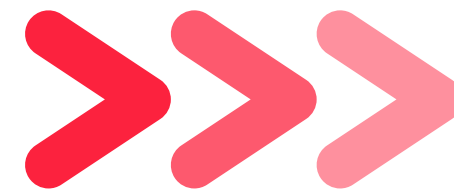


Basic prompts



Action

Target



Keyword-Based Prompting

- *'Summarize this article in 3 bullets'*
- *'Write a title for this abstract'*
- *'Translate this text this into academic English'*

Action → What to do (e.g. Summarize, Translate, Fix grammar, Generate)

Target → What it's applied to (e.g. this article, the following paragraph, this abstract)



Best for: Quick translation, summary, edit



Perfect for everyday tasks



Keywords



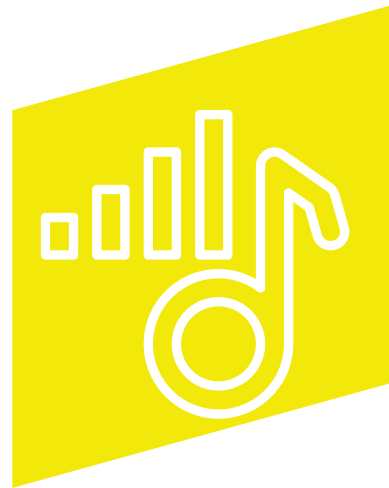
Action or Task

Keyword	Use / Meaning
Summarize	Make a brief summary of a text or idea
Explain	Provide a clear and understandable explanation
Describe	Give a detailed description
Translate	Convert text between languages
Analyze	Provide a critical or technical analysis
Compare	Highlight similarities and differences
Classify	Organize into categories
Generate	Create new content (text, images, ideas...)
Write	Compose a text (email, poem, article...)
Rewrite	Write again using a different style



Keywords

Optional additions: (can modify tone/format)



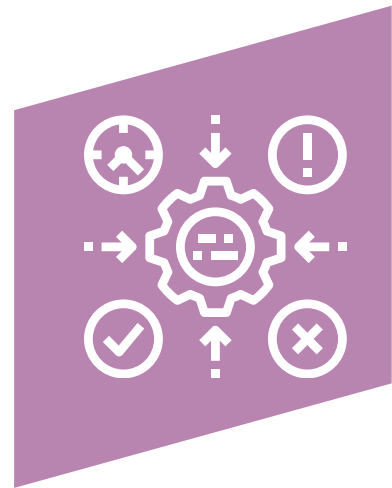
Tone or Register

Keyword	Meaning
Formal	Polite, academic, professional
Informal	Casual, friendly
Academic	Study-oriented language
Popularized	Easy to understand for anyone
Creative	Imaginative, original
Concise	Short and to the point
Expanded	More detail or depth



Keywords

Optional additions: (can modify tone/format)



Format and Style

Keyword	Meaning
List	Use bullets or numbering
Table	Use rows and columns
Dialogue	Characters speaking
Poem	Rhythmic or rhyming text
Article	Informative or opinion piece
Script	For plays, movies, or staged dialogue
With examples	Include sample cases
Step by step	Sequential, detailed instruction
For children	Simple, age-appropriate language
With humor	Light, funny tone
With images	Request image generation or visual description
In bullets	Use bullet points for summary



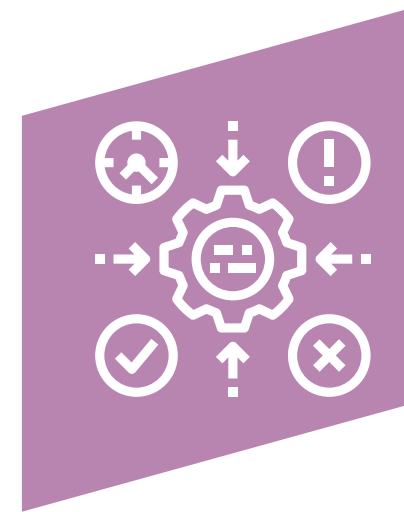
Complex prompts



Objective



Context



Expectations

Perfect for academic, professional, and communication-heavy contexts.

Objective → Summarize, translate, organize, generate a post, a letter, etc.

Context → Why do you need it? Who is affected? What are you trying to achieve?

Expectations → What kind of response should the AI give? Output format, tone, source of information



O Summarize this scientific article.

C I need a quick overview of this article for a research group meeting where I'll present the main findings. The team includes PhD students from different disciplines, so clarity is important.

E Provide 3 key findings and 2 open questions in bullet points. Use clear, accessible language suitable for non-experts in the specific field.



Complex prompts



Context / Audience

“Rewrite this for 12-year-old students.”

“Adapt this text for a professional audience.”

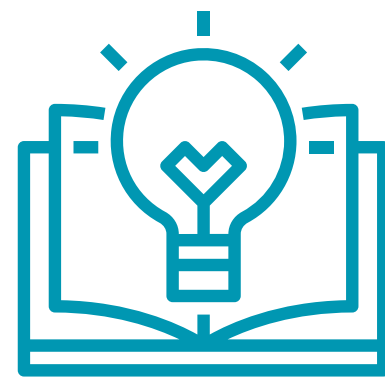
“Make this suitable for a beginner.”

“Rewrite this explanation so a first-year engineering student with no background can understand it.”



PROMPT 1:

Write a brief monologue to introduce an AI prompting course, including some example tasks ChatGPT can help with related to aptamers, biofuel cells, and similar topics. Make it humorous and engaging to capture the attention of the audience (PhD students, professors, and postdocs). The monologue should take maximum 45 seconds when read aloud.



ROCEF Technique



R- Role

Not explicitly assigned (implicit: 'Act as a presenter')



O- Objective

Write a brief monologue to introduce an AI prompting course...



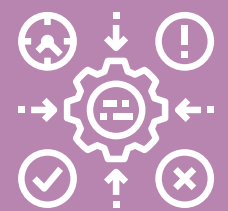
C- Context

"...PhD students, professors, and postdocs"



E- Example

"...including some example tasks ChatGPT can help with related to aptamers, biofuel cells, and similar topics."



F- Format

"...no longer than 45 seconds when read aloud." and "Make it humorous and engaging."

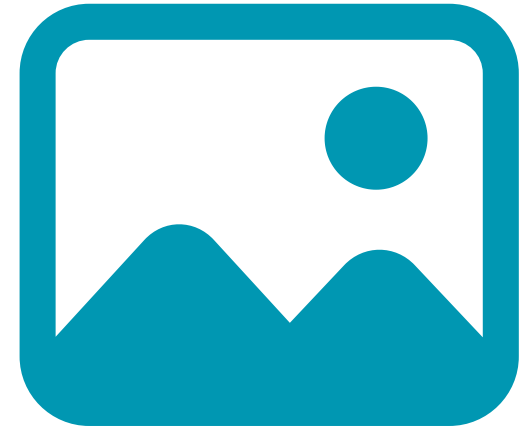
Use **ROCEF** technique when you need:

- More **detailed and structured** instructions
- To define the Role, Objective, Context, Example, and Format
- Output that must be **precise, well-scoped**, and tailored for clarity
- To describe a **complex task** or data-heavy information



Best for: research tasks, technical writing and educational content.

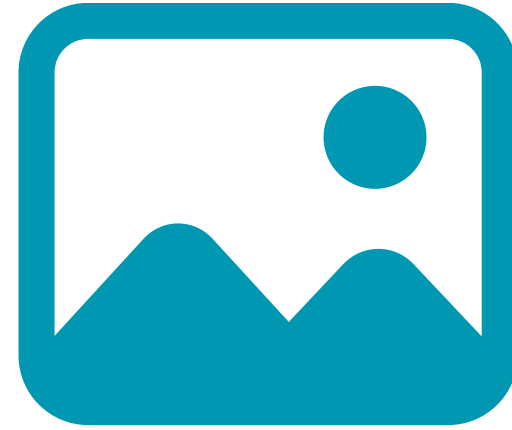
PROMPT 2:



“Generate a realistic 3D image of a middle-aged female professor standing in a university classroom addressing an audience. Behind her, there is a blackboard with the following bullet-point text:

- 1. Rewrite a reviewer response**
- 2. Summarize a meeting**
- 3. Translate an abstract**
- 4. Polish a bio**
- 5. Suggest titles for an article**

The image should be in landscape orientation (16:9)”.



TREE Technique:



T- Task

"Generate a realistic 3D image of a middle-aged female professor..." clearly defines what is being asked.



R- Restrictions

"Behind her there is a blackboard, addressing an audience, landscape orientation (16:9)", sets technical and visual constraints.



E- Example

*"Bullet-point text:
1. Rewrite a reviewer response / 2. Summarize a meeting / 3. Translate an abstract / 4. Polish a bio / 5. Suggest titles for an article"* suggests example content for the background.



E- Style

"Realistic 3D image" defines the desired visual tone and style.

Use **TREE** technique when you want:

- To clearly **define creative or structured output**
- The AI's response to follow **specific rules, examples**, or a **particular style**.



Best for: visuals, images, creative content, Well-Structured
Text (Email writing, bios, lesson plans, job ads)

4 PRACTICAL TIPS



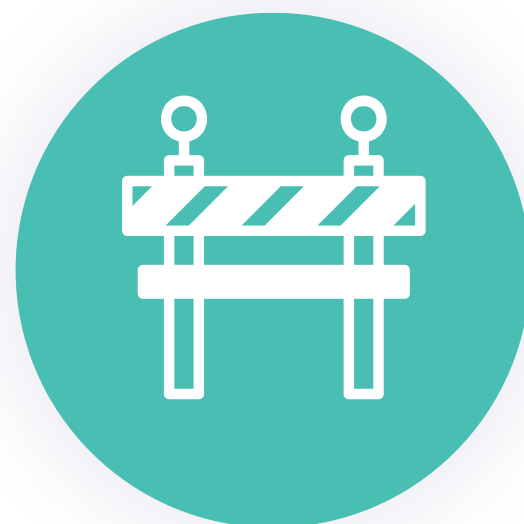


Skip Formalities

Avoid unnecessary phrases like “please” or “could you

✓ Instead of: "Could you maybe help me write a summary?"

➡ Try: "Summarize this text in 3 bullet points."



Use Delimiters

Separate input to clearly show where your input begins and ends (use // or sections)



Break Down tasks

For complex tasks, break down to get a better response.

✗ "Explain what a sorting algorithm is, describe how bubble sort works, and give an example with [5,2,8,1,9]."

✓ Break it into:

What is a sorting algorithm?

How does bubble sort work?

Give a step-by-step example using [5,2,8,1,9]



Positive sentences

Negations confuse the IA models.

✗ "Don't use slang, avoid emojis, don't be informal."

✓ "Write a formal email using professional language, include a polite greeting, maintain a respectful tone, and close with a courteous sign-off."

WHAT IS CHATGPT?

A large-language model that can generate text, answer questions, and help with literature, data interpretation, and idea generation.



CHATGPT BASICS

1. Create an account

Et donem la
benvinguda de nou

Adreça de correu electrònic

|

Continua

No tens un compte? [Registra't](#)

O



Continua amb Google



Continua amb un compte
de Microsoft

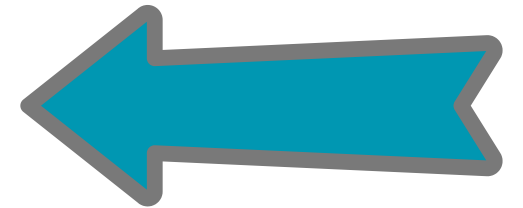


Continua amb Apple



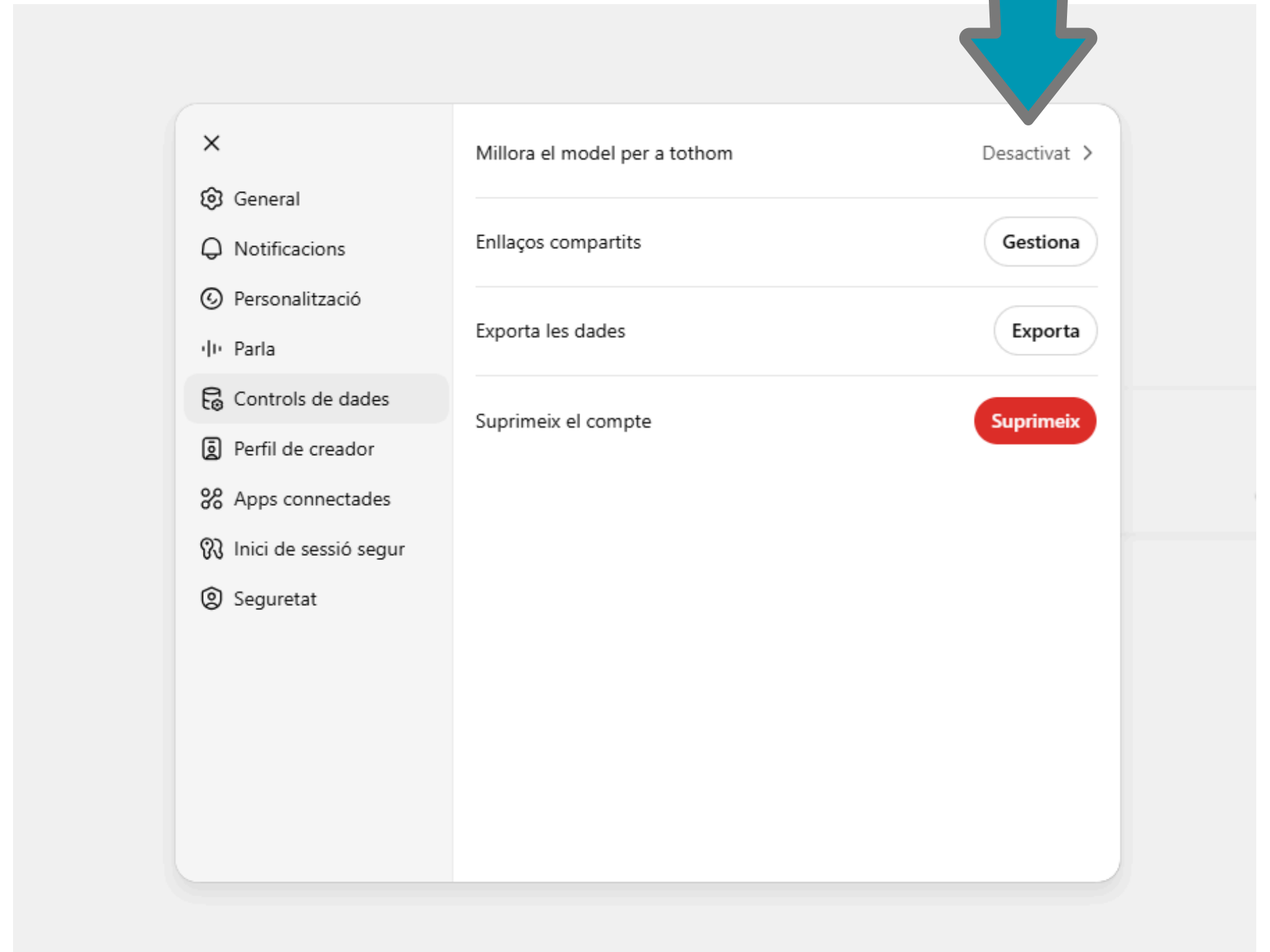
Continua amb el telèfon

[Condicions d'ús](#) | [Política de privadesa](#)



CHATGPT BASICS

2. Activate private connection



2. Activate private connection

Summary Table

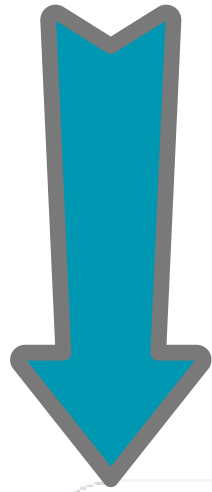
Feature	Free	Pro
Encryption in transit/at rest	✓	✓
Used for training?	Yes (default)	No (default)
Can disable training?	✓	✓
Human review possible?	Limited	Much more restricted
File security/encryption	✓	✓ (same core encryption)
Stronger privacy guarantees	✗	✓

If you work with student data, internal documents, research, or personal information, choose ChatGPT Pro or disable training in ChatGPT Free.

CHATGPT BASICS

3. Choose the action



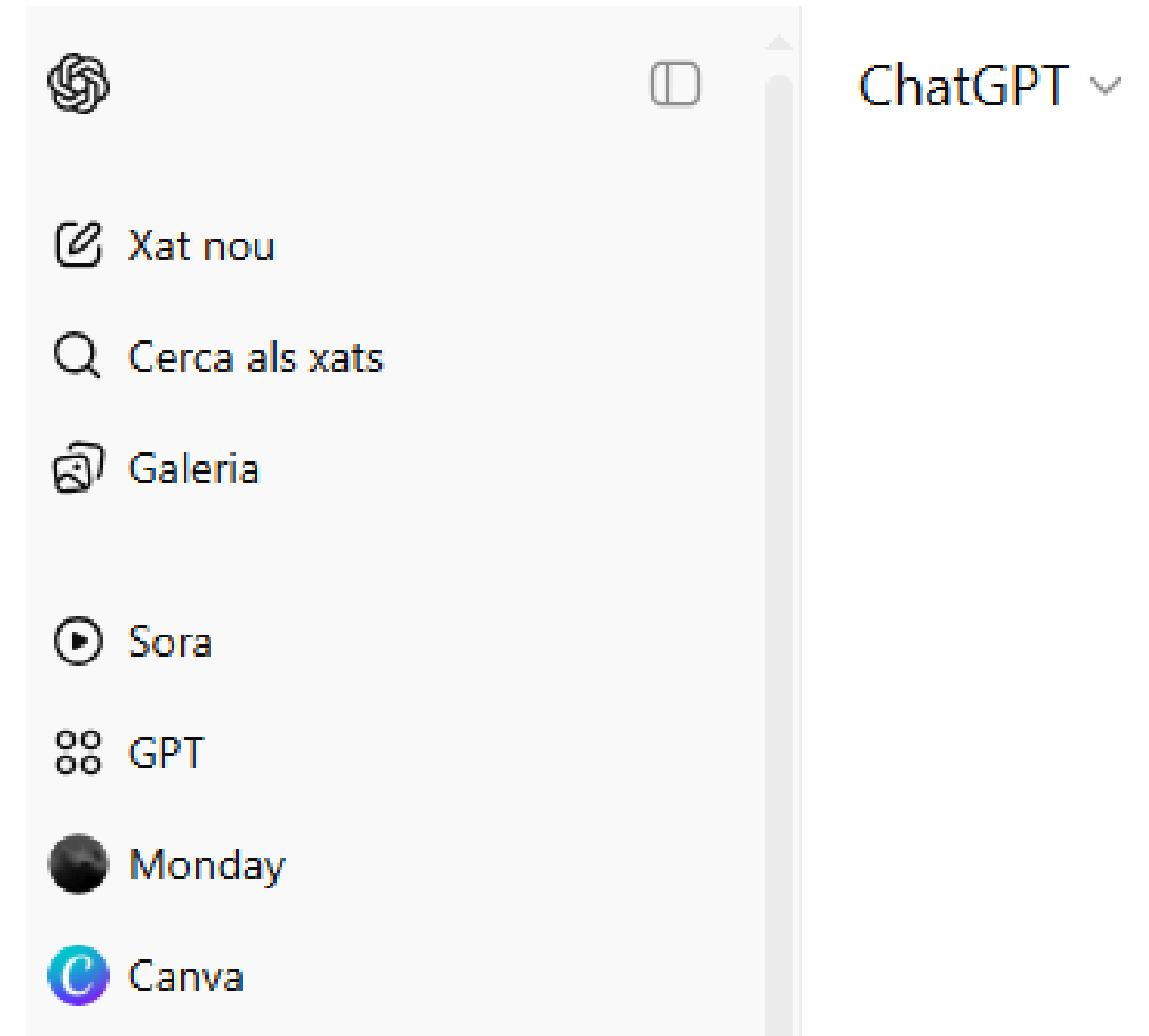
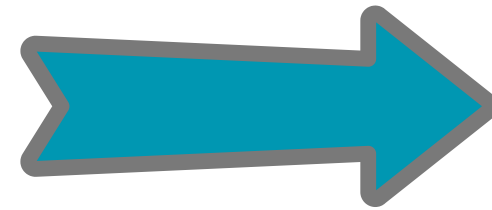


This screenshot shows the Google Gemini interface. At the top, there is a search bar with the placeholder text "Pregunta el que vulguis" (Ask what you want). To the right of the search bar are icons for voice search and a menu. Below the search bar, a menu is displayed with several options, each accompanied by an icon: "Afegeix fotos i fitxers" (Add photos and files) with a paperclip icon, "Recerca profunda" (Deep research) with a magnifying glass icon, "Crea una imatge" (Create an image) with a paint palette icon, "Mode d'agent" (Agent mode) with a robot head icon, and "Estudia i aprèn" (Study and learn) with a book icon. At the bottom of this menu is a "Més" (More) option with a right-pointing chevron. To the right of the "Més" option, a sub-menu is visible, containing "Cerca a la xarxa" (Search the web) with a globe icon and "Llenç" (Canvas) with a pencil icon.

7. Canvas: Opens a writing and editing workspace to reorganize, expand, or refine text easily.

CHATGPT BASICS

5. Search & GPT's





FINAL TASK:

Improve a Weak Prompt (Using ROCEF or TREE)

Instructions:

Choose one of these weak prompts (or another from your own research area):

- "Explain this."
- "Write something about my project."
- "Help me summarize this article."
- "Fix this text."

Task:

Rewrite the chosen weak prompt using ROCEF or TREE to make it clear, specific, structured, and actionable.

OUTCOME

The prompt should include:

- **A clear Role**
- **A precise Objective**
- **Relevant Context or Examples**
- **Required Format**
- **Any Restrictions**