

Cheat Sheet: Multi-agent

Complex problems call for dialogue: let AI adopt multiple roles that challenge and complement one another.

Why this matters

A single answer often seems convincing, but hides blind spots. With a **multi-agent approach**, you let AI bring different perspectives into dialogue (e.g. expert versus critic). This adds nuance, reveals assumptions, and strengthens your analysis.

Note: multi-agent provides more perspectives, not necessarily more truth. For simple questions it mainly produces extra text.

Dimension: Application

Multi-agent prompting = using AI as if several experts are thinking along.

- Builds on role prompting: “You are a ...”
- Extra layer: multiple roles interacting simultaneously (debate, collaboration, review).

Example

Single answer

✗ Question: “What are the risks of facial recognition in public spaces?”
→ AI provides a list of pros and cons.

Multi-agent

✓ Prompt:

Answer the question: “What are the risks of facial recognition?”

Role A = privacy lawyer.

Role B = policy adviser.

Let Role B respond to Role A. Conclude with a synthesis.

→ Lawyer highlights GDPR and civil rights, adviser points to safety. Together this delivers a more balanced picture.

Tips

- Define **contrasting roles** (expert vs critic, developer vs user).
- Ask for **interaction**: “Let Role A respond to Role B.”
- Conclude with a **synthesis or joint conclusion**.
- Ask each role explicitly for **biases or limitations**.
- Use multi-agent mainly for **complex questions**; for simple tasks it is overkill.

✔ Checklist – Do’s & Don’ts

Do’s	Don’ts
Give roles clear instructions	Only name roles without a task
Let roles respond to one another	Roles talking past each other without interaction
Ask for a joint conclusion	Stop after the first round without synthesis
Check bias and assumptions per role	Roles simply repeating without new insights

⊘ Not to be confused with...

- **Role prompting** (single role/persona) → multi-agent = multiple at once.
- **Brainstorming** → loose ideas without challenge ≠ systematic dialogue.
- **Deep research** → source retrieval is different; multi-agent is about perspectives.

Try this

Formulate a research question: “*What are the pros and cons of nuclear energy in Europe?*”

1. Let AI answer as an **energy economist**.
2. Then request a response from an **environmental activist**.
3. Conclude with a synthesis: where do they agree, where do they diverge?

Learn & Apply

The real difference doesn’t come from reading a single AI answer, but from letting roles converse and drawing your own balance.

Explore more

🔗 More cheat sheets on prompting: symbio6.nl/en/sheets

🚀 Workshop – Learn how multi-agent prompting brings nuance, debate, and better decisions

