

STEVEN SPIELBERG PRESENTS



# BACK TO THE FUTURE

A ROBERT ZEMECKIS FILM





STEVEN SPIELBERG PRESENTS

# BACK TO THE FUTURE

THE MOVIE  
A ROBERT ZEMECKIS FILM



# **BACK** **TO** **THE PROMPT**

**REWRITING THE FUTURE OF AI  
WITH REAL-TIME KNOWLEDGE**

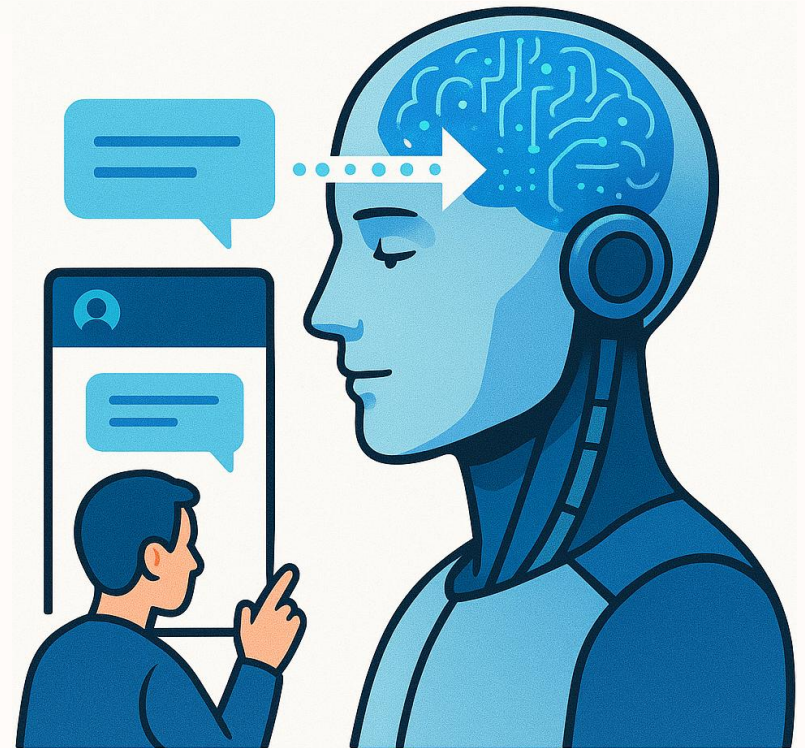
# BACK TO THE PROMPT

REWRITING THE FUTURE OF AI  
WITH REAL-TIME KNOWLEDGE



# BACK TO THE PROMPT

REWRITING THE FUTURE OF AI  
WITH REAL-TIME KNOWLEDGE



WHO IS MEMORIA

INTR3





# YOUR WAY INTO THE FUTURE

WHO IS MEMORIA

# Projects



CUTTING EDGE &  
TAILOR MADE



NEEDS & REQUIREMENTS  
ANALYSIS



INCREMENTAL  
DEVELOPMENT



COMPLETE PROCESS  
COVERAGE



# Chapters of our story

1. The initial problem
2. The classic solution
3. The turning point
4. Real-time knowledge

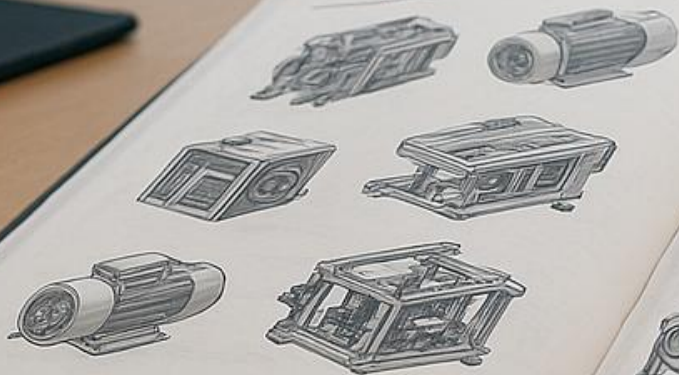
BACK TO THE PROMPT: REWRITING THE FUTURE OF AI WITH REAL-TIME KNOWLEDGE

# 1. The initial problem

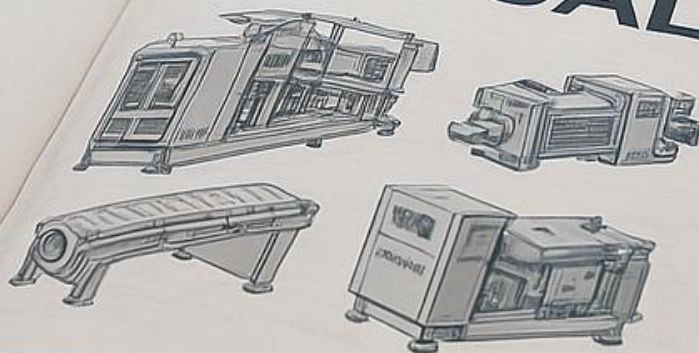




## COMPONENTS



## USER MANUAL



The root of the  
problem is...

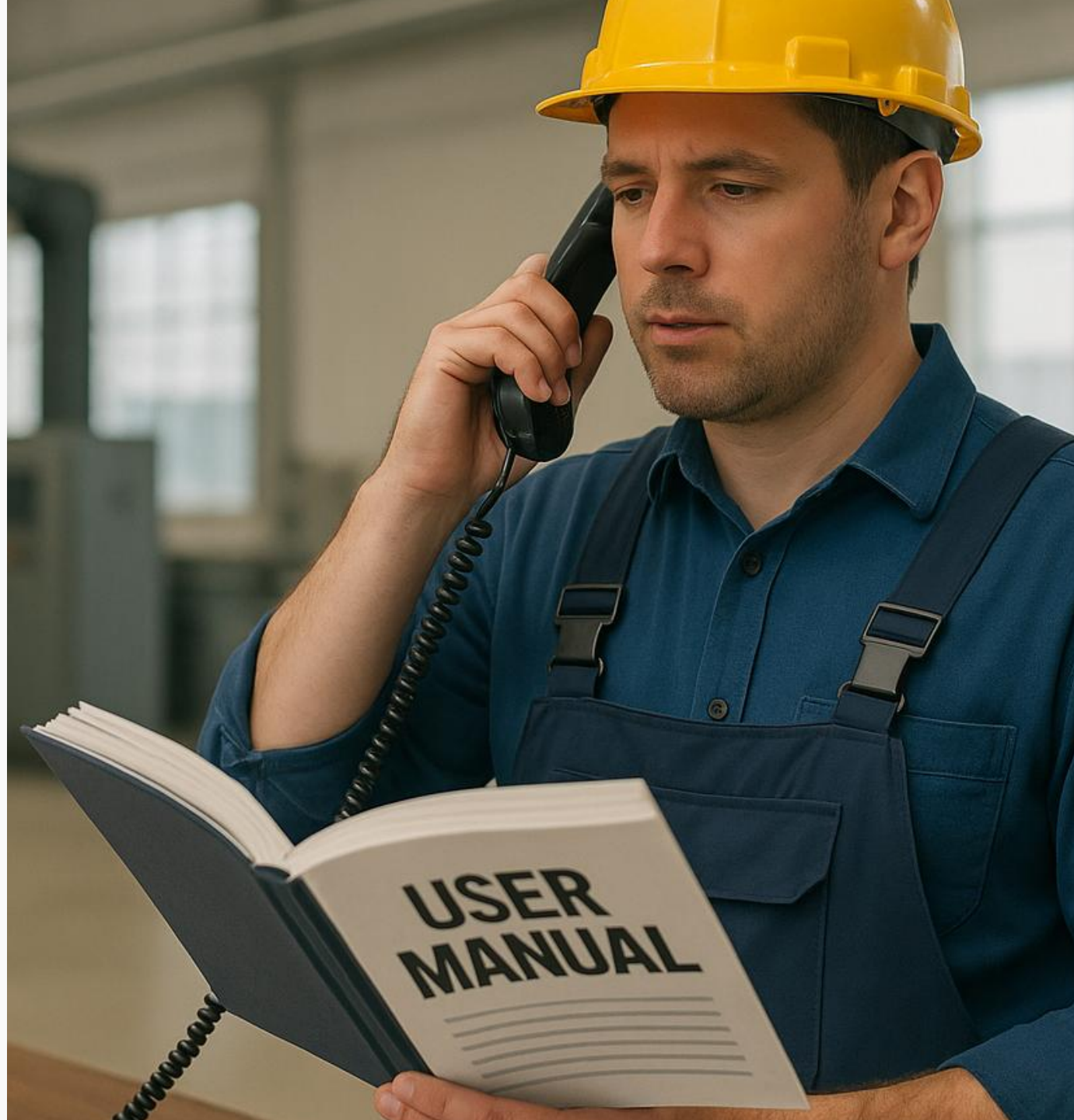
The root of the problem is...





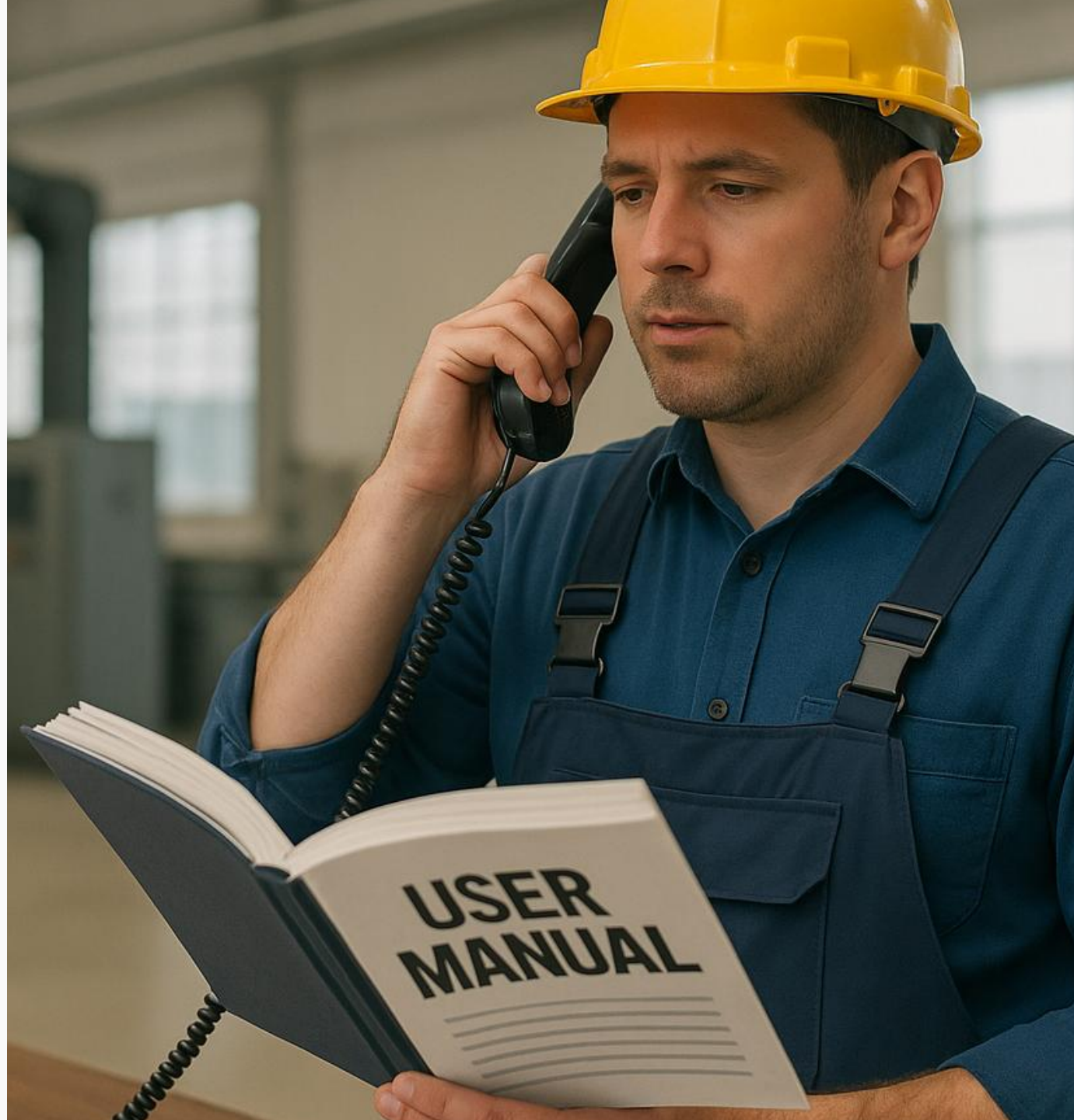
# The root of the problem is...

- They don't have access to the manual



# The root of the problem is...

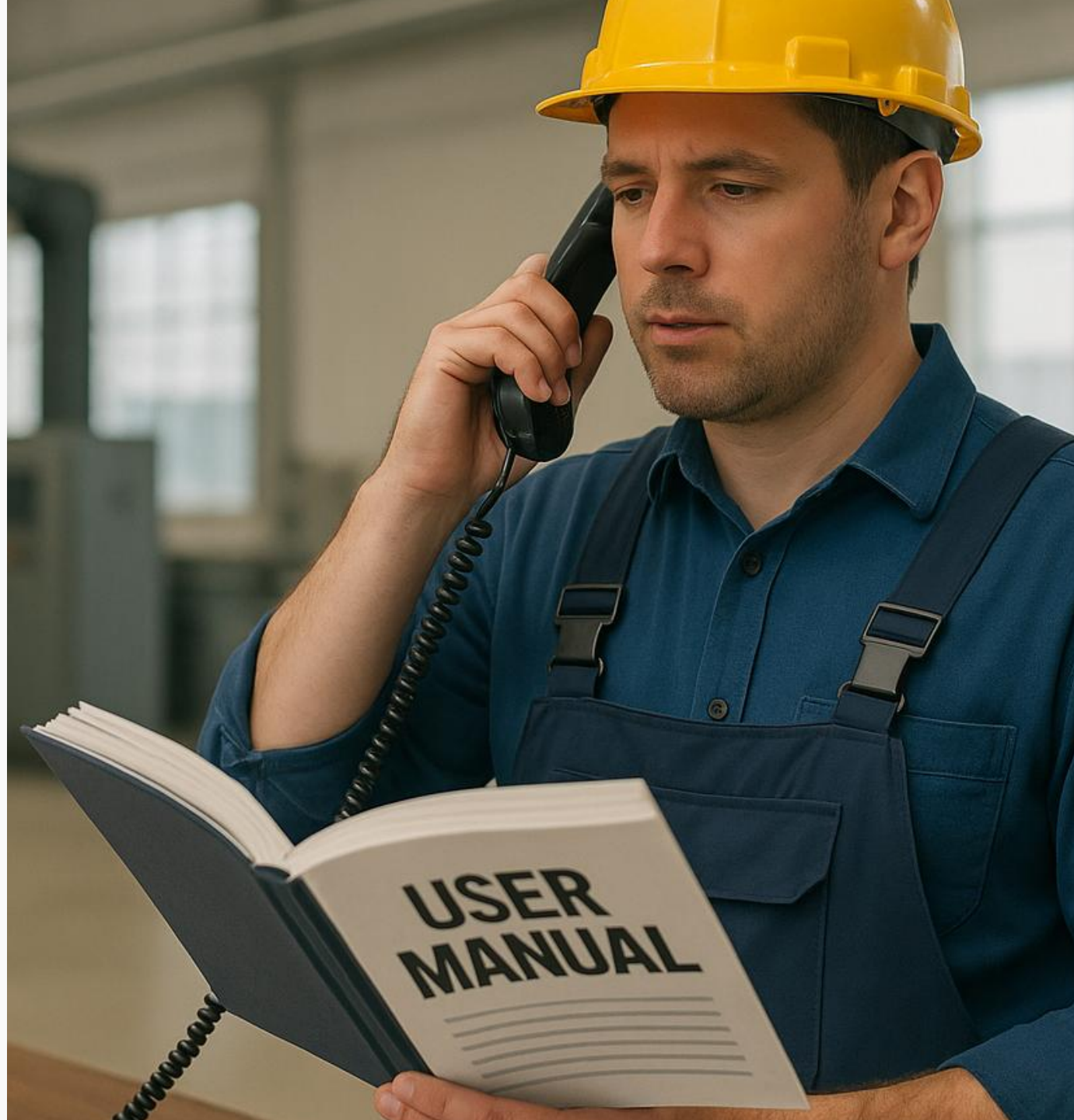
- They don't have access to the manual
- They don't have time to search through hundreds of pages and need an immediate answer





# The root of the problem is...

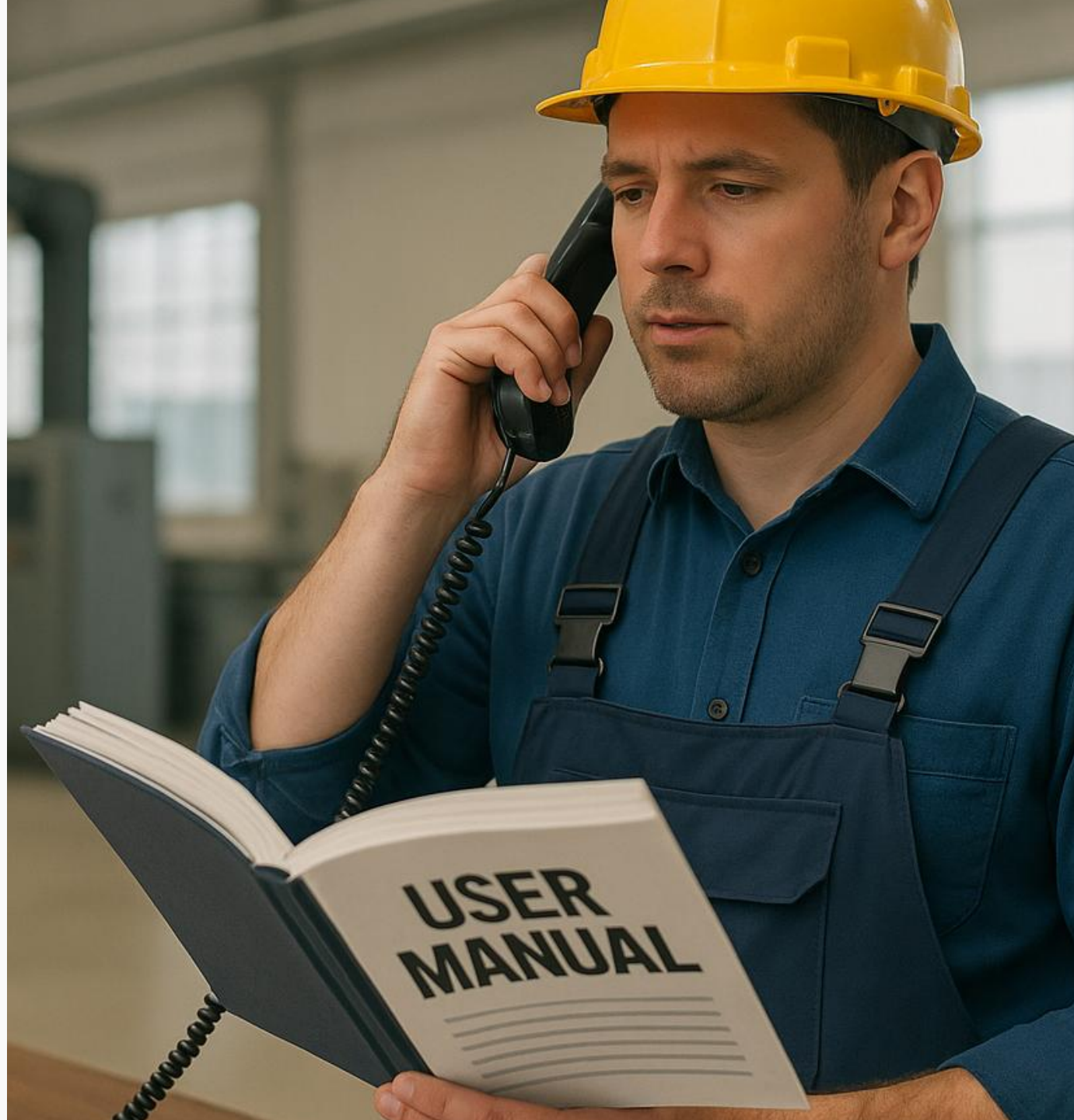
- They don't have access to the manual
- They don't have time to search through hundreds of pages and need an immediate answer
- They struggle to find the information because it is scattered throughout the manual





# The root of the problem is...

- They don't have access to the manual
- They don't have time to search through hundreds of pages and need an immediate answer
- They struggle to find the information because it is scattered throughout the manual
- They are lazy











How do you  
configure this  
component?

What does  
the error code  
407 mean?

Where can I find  
the setting for the  
green button?

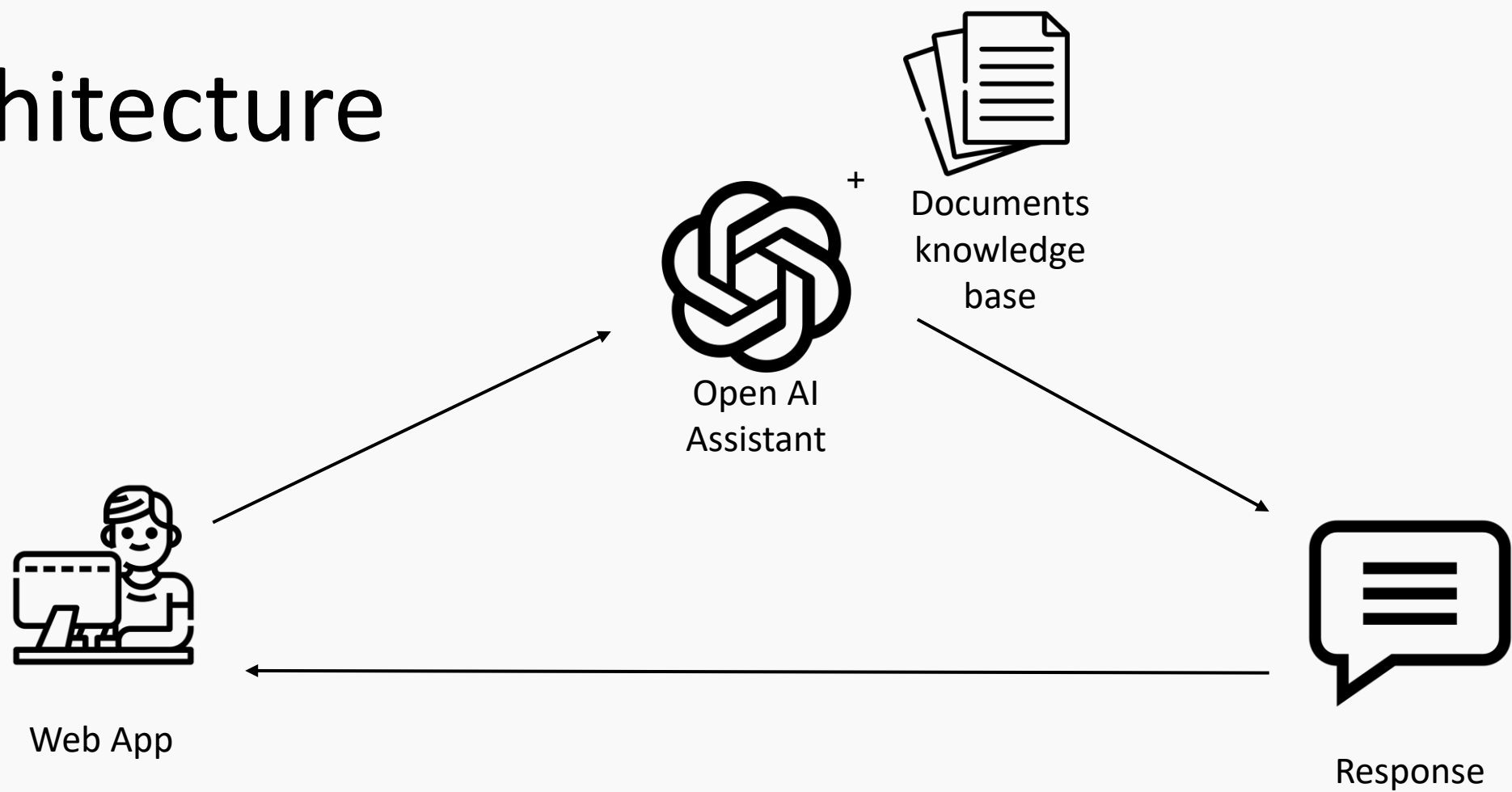


Can we use AI to solve  
this problem?

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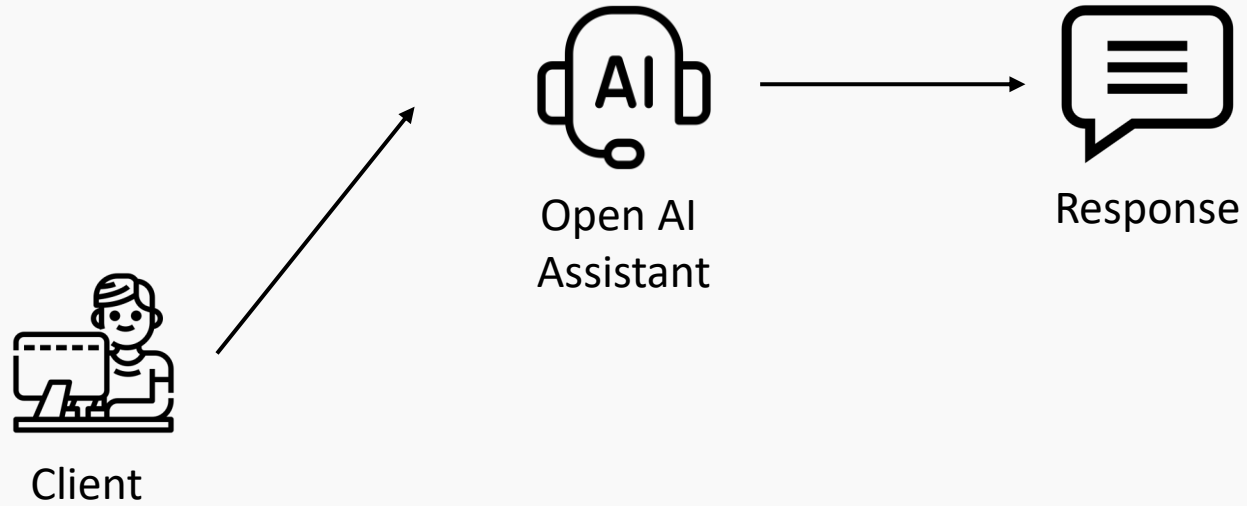
# 2. The classic solution

# Architecture

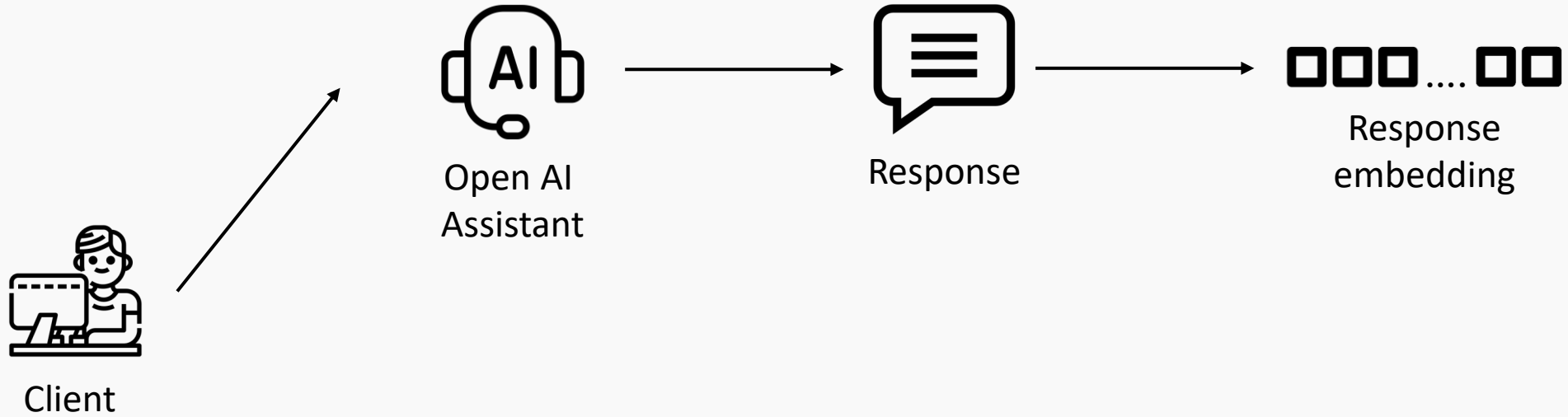




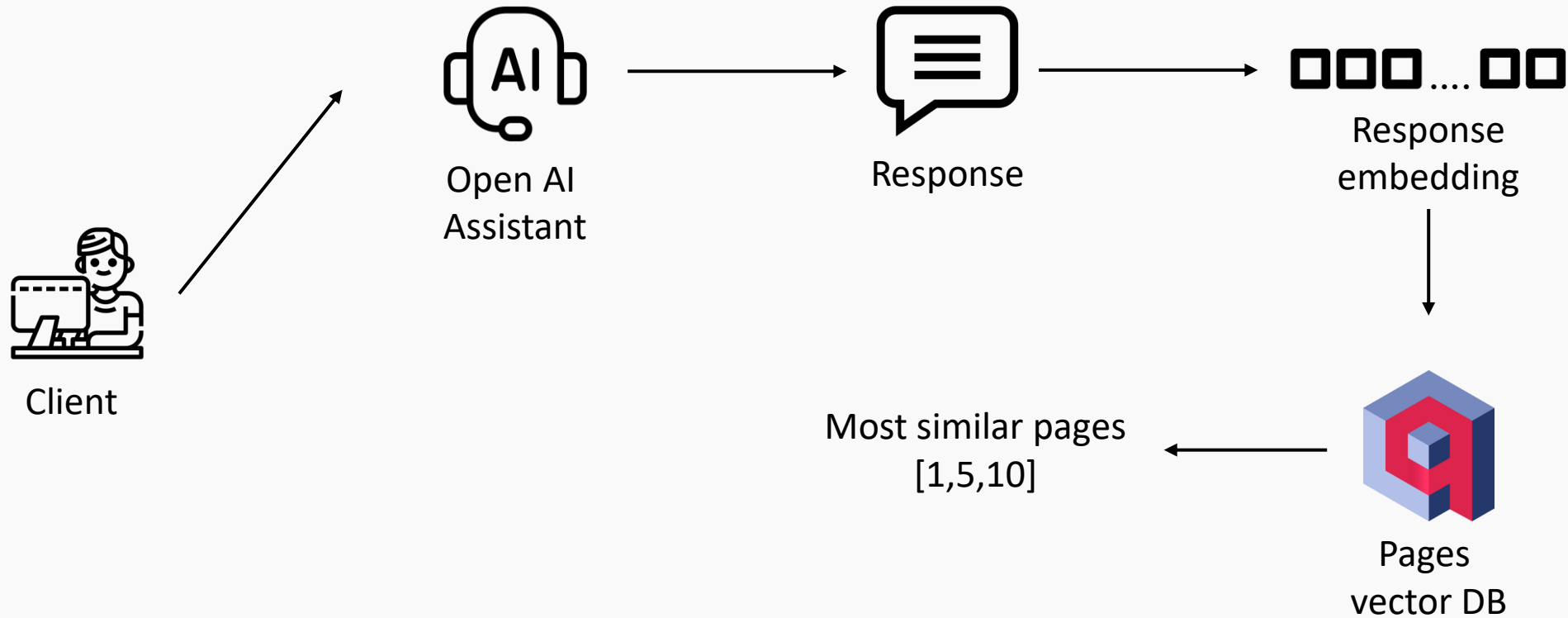
# Web App



# Web App

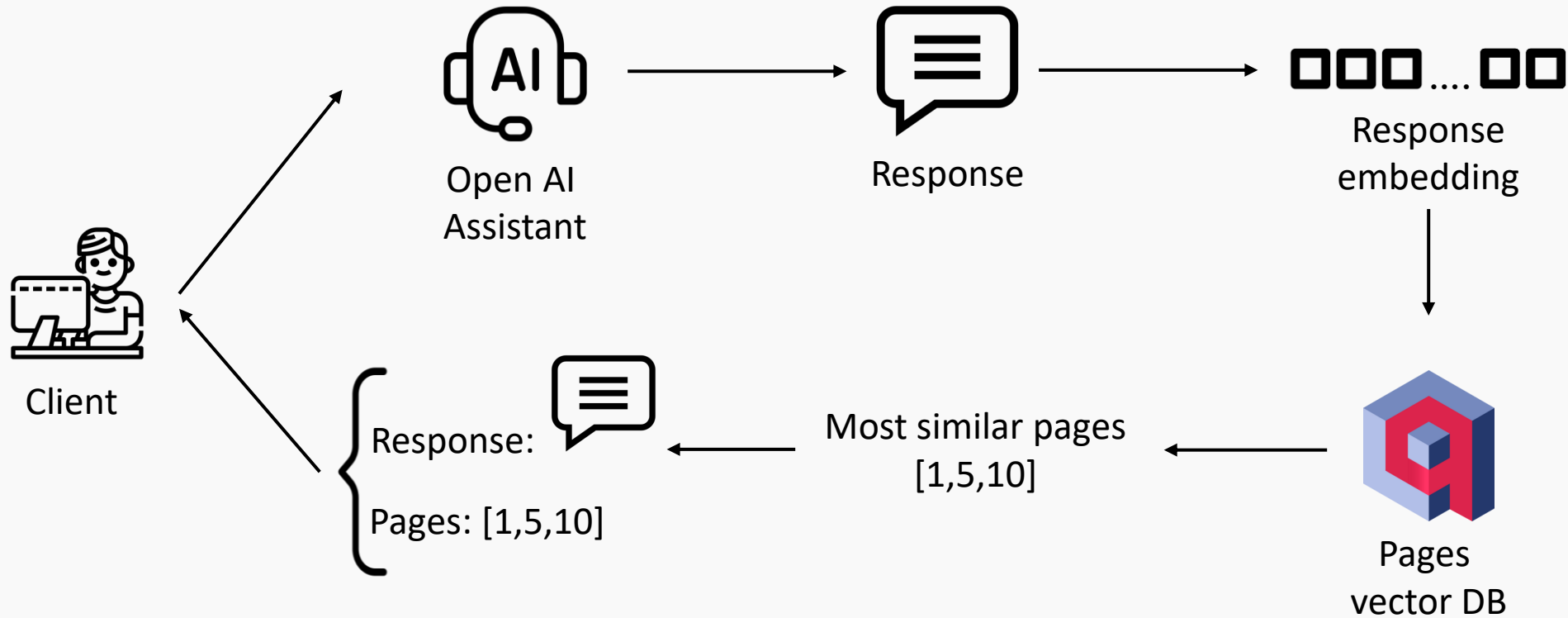


# Web App





# Web App

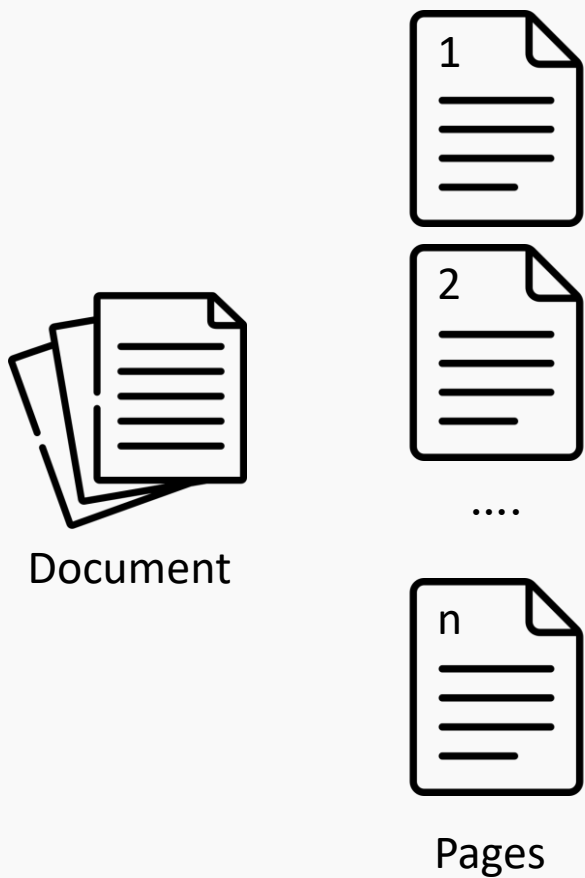


# Our vector space



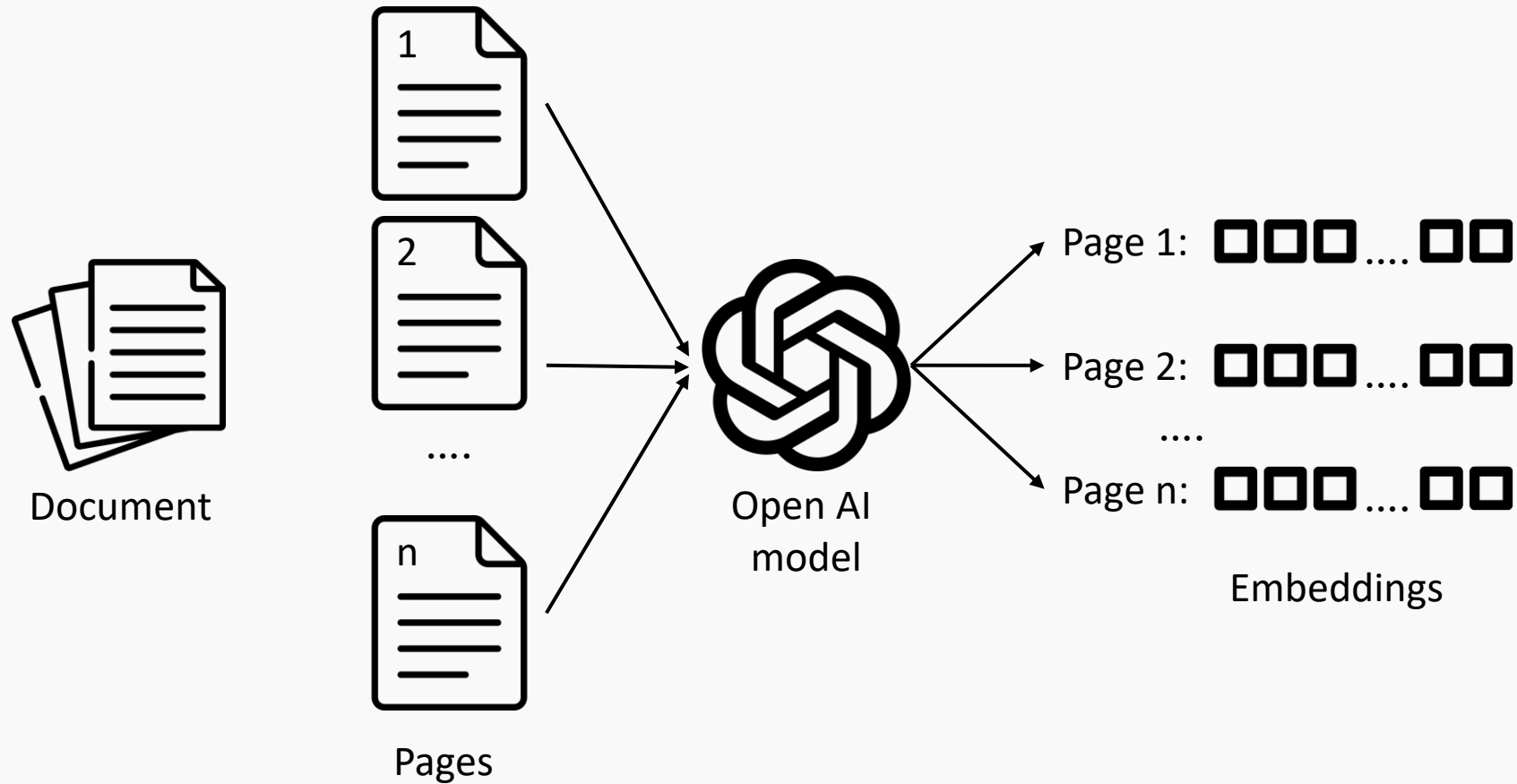
Document

# Our vector space

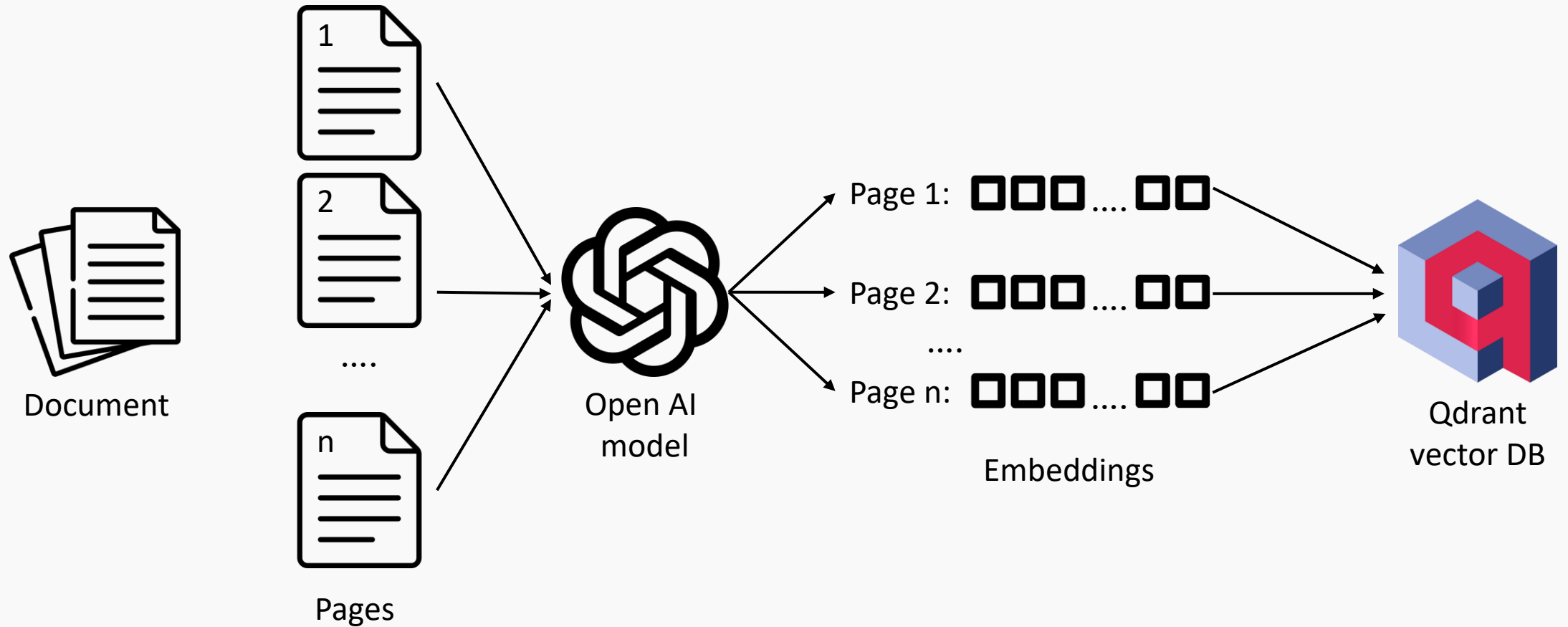




# Our vector space





# Our vector space




# AI Assistant

- Question
- Answer
- Page references


 AI Assistant New chat



Welcome! How can I help you?






What should I do in case of fire?



In the event of a fire, you should follow these emergency procedures:

1. Disconnect the electric power supply to the machine to remove voltage.
2. Attempt to extinguish the fire using foam extinguishers. If it is not possible or safe, immediately call the fire service.
3. Never use water to extinguish a fire if the machine is live. Only suitable extinguishers should be used.

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Artificial Intelligence generated content may not be correct

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# 3. The turning point



# Wrong answer



User

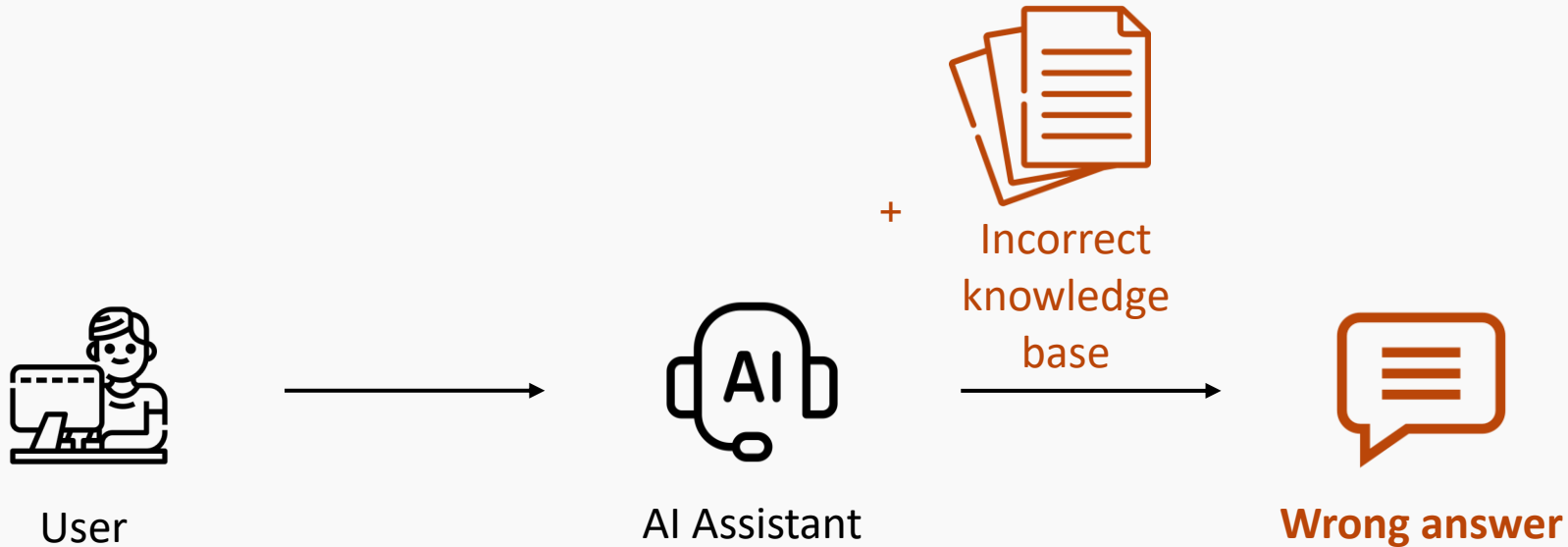


AI Assistant



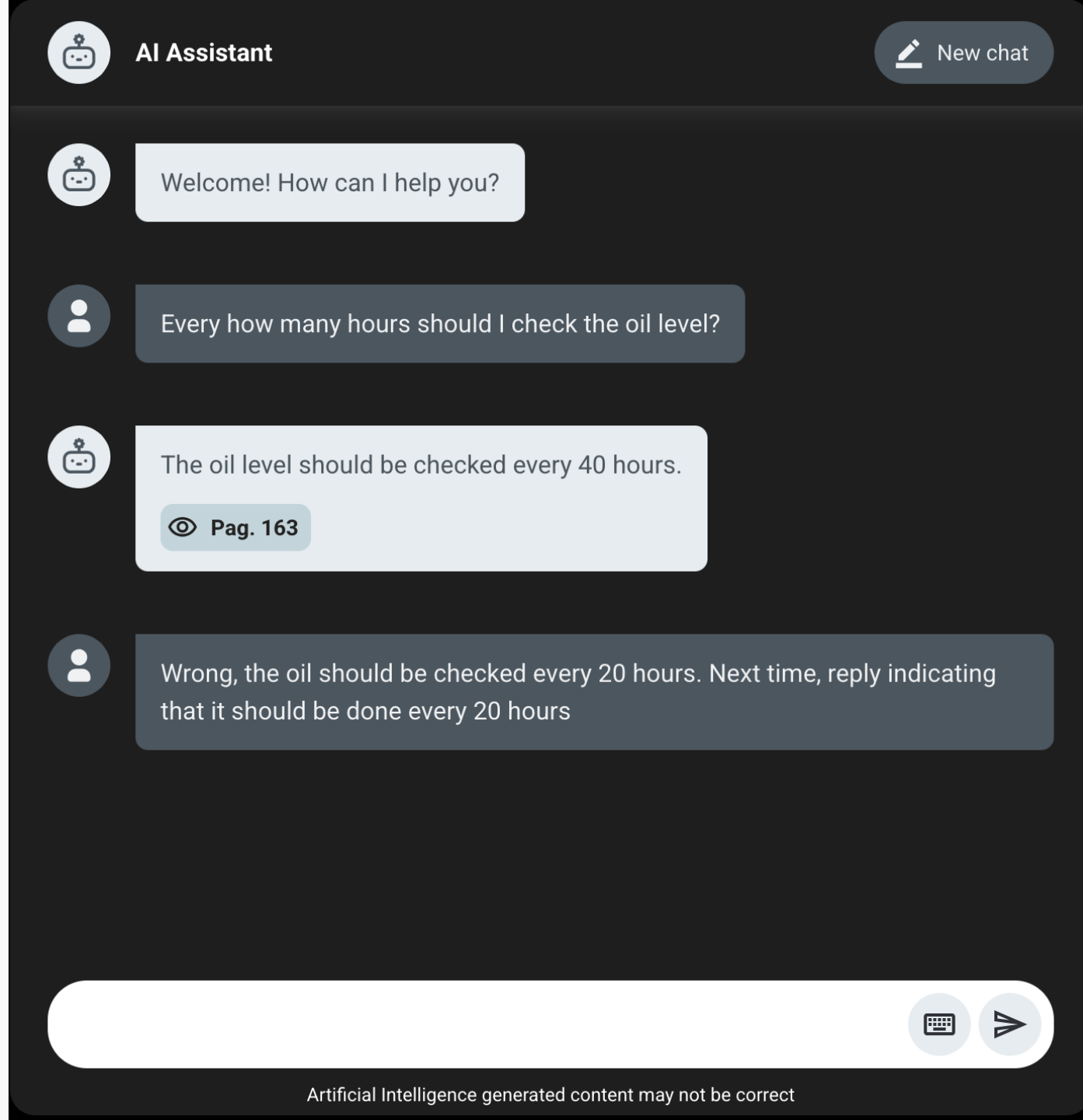
**Wrong answer**

# Wrong answer... due to incorrect documentation



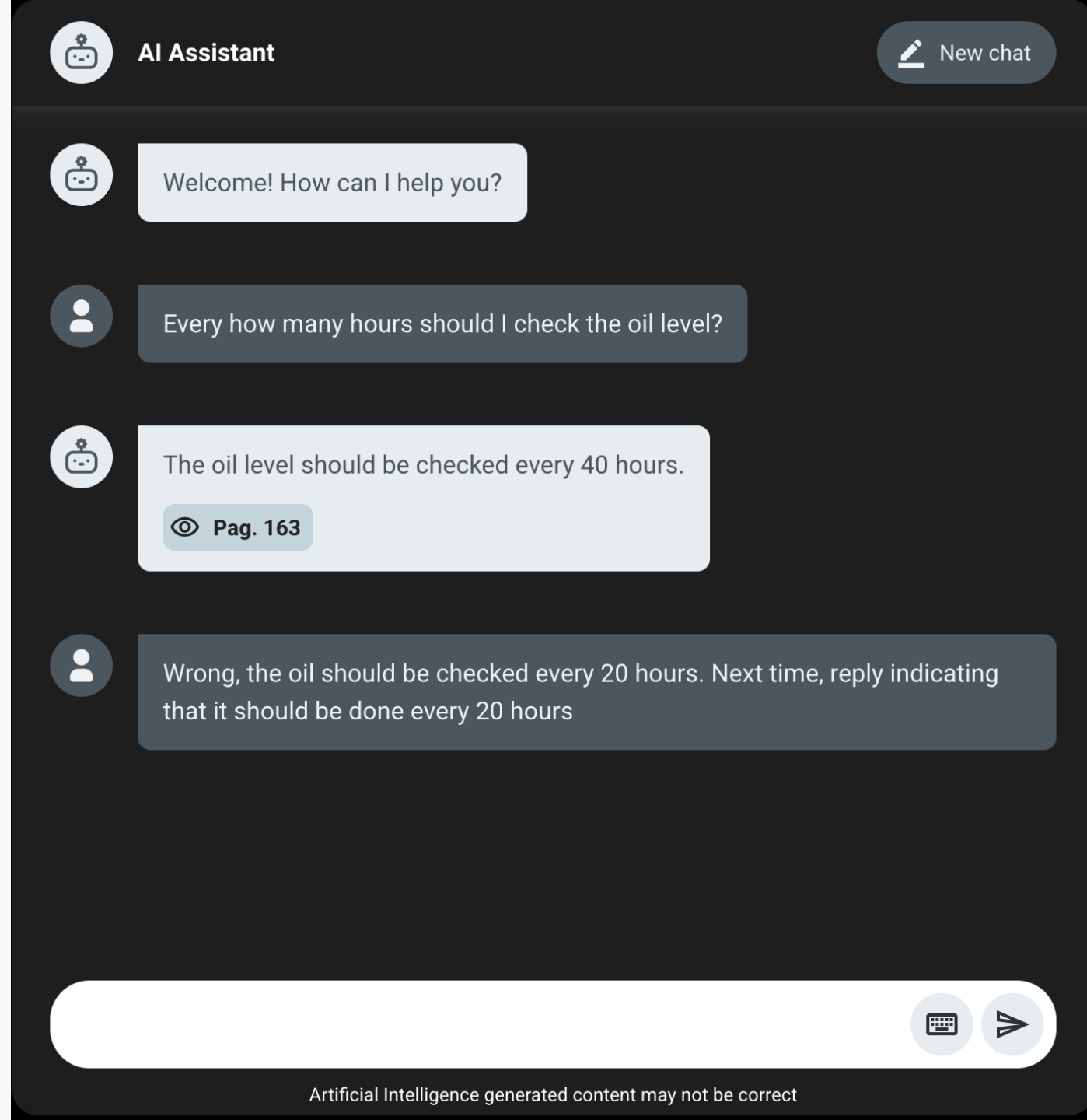
# Natural human instinct

- He tried to teach the assistant the right answer



# Natural human instinct

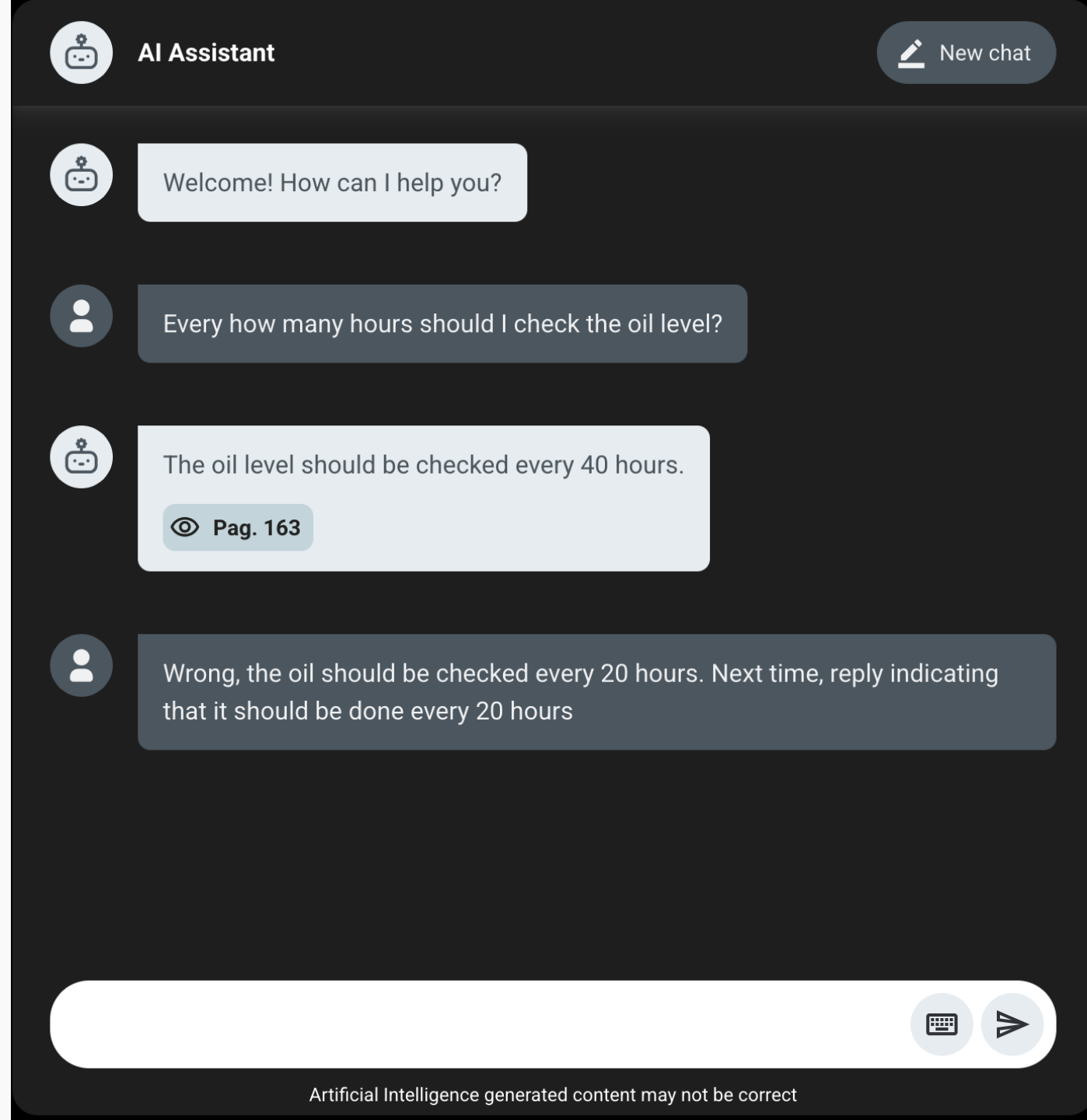
- He tried to teach the assistant the right answer
- Sometimes it worked...





# Natural human instinct

- He tried to teach the assistant the right answer
- Sometimes it worked...
- ...but only in the chat context.





Can we fix this? I don't want to update the document manually. I just want the assistant to remember the correction

A document is static, but  
knowledge should be  
alive

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# 4. Real-time knowledge



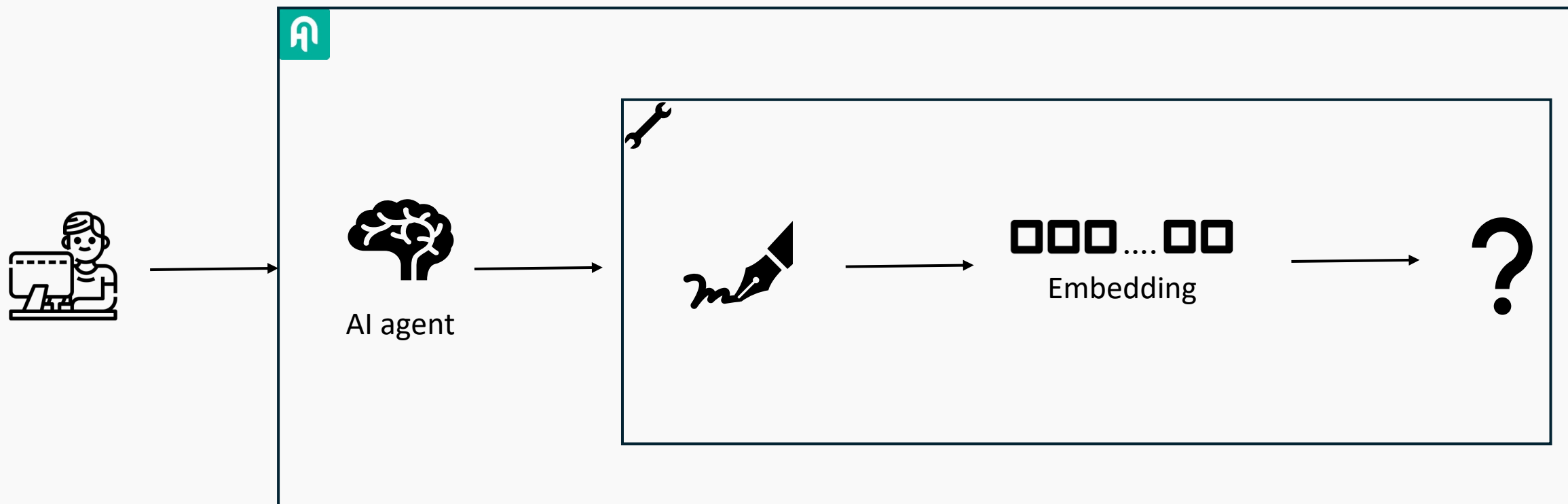
# Our goal

- Empower users to provide an update with a message
- The update must persist outside the chat context
- The update must be available to other users

# AI Agent

- Acts autonomously, using the available tools
- Tools are function that we define
- The prompt is the link between model and tools

# Update tool



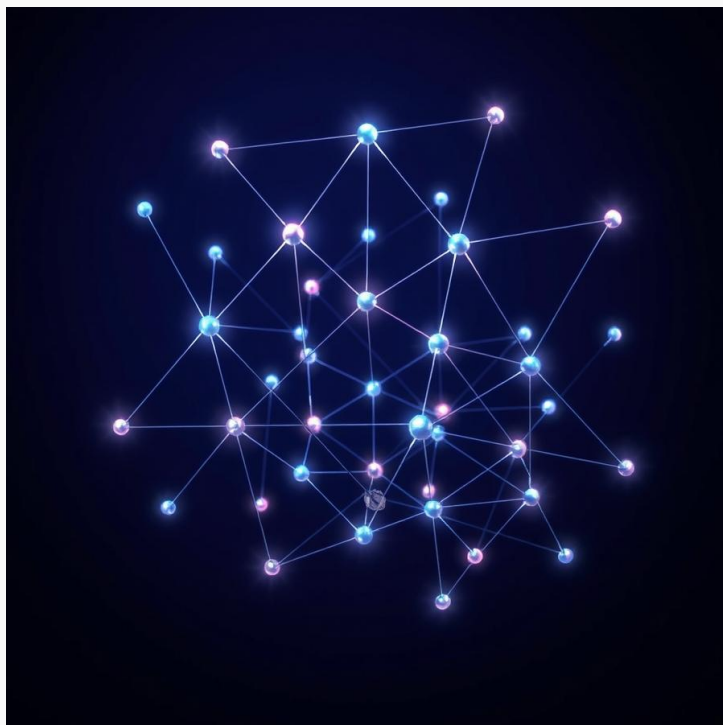
# Knowledge management



Is the information provided an  
update of something already  
existing, or is it something  
completely new?



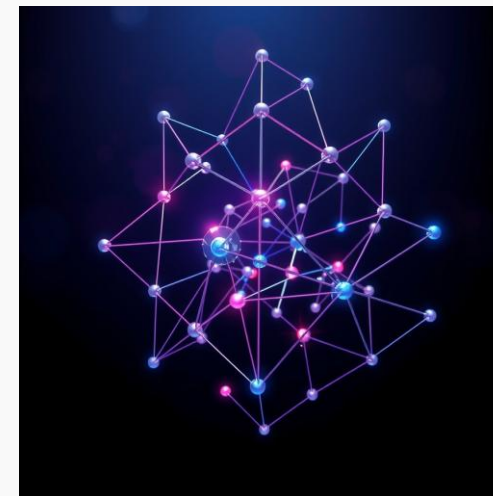
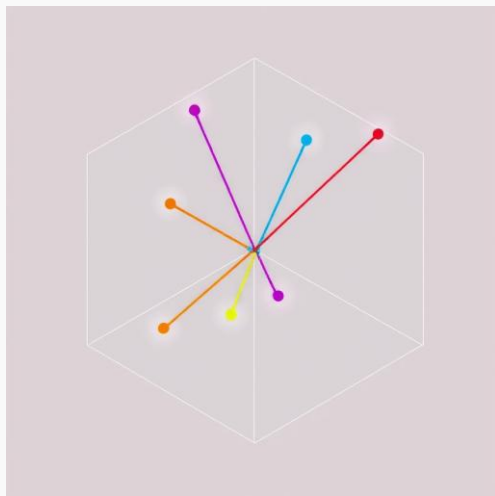
# Vector database



The Hierarchical Navigable  
Small World (HNSW) is the  
algorithm responsible for  
vector indexing

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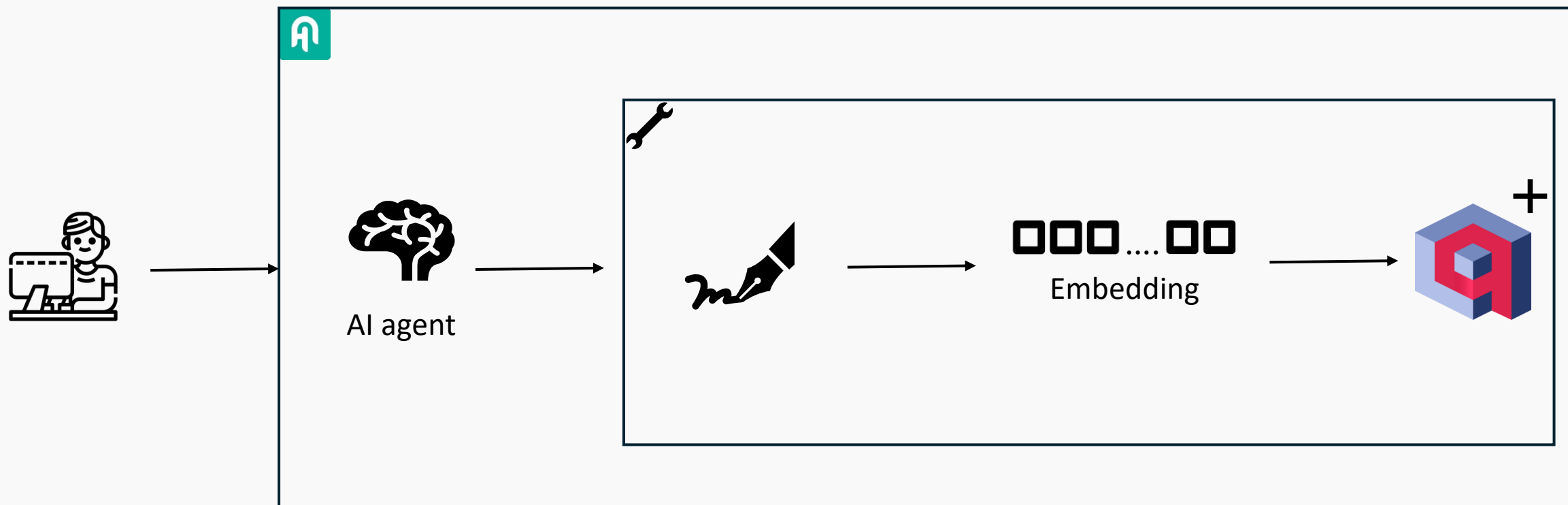
# Knowledge management



# Monitoring

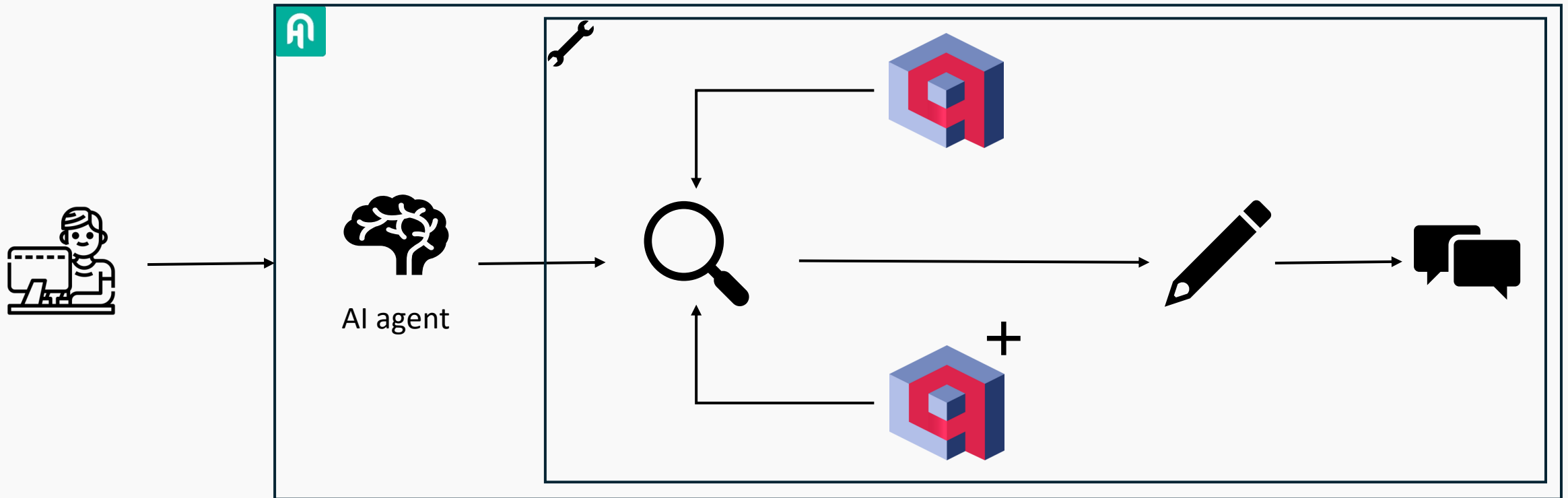
Admin users want to be able to review updates and possibly modify them if found incomplete or incorrect

# Update tool

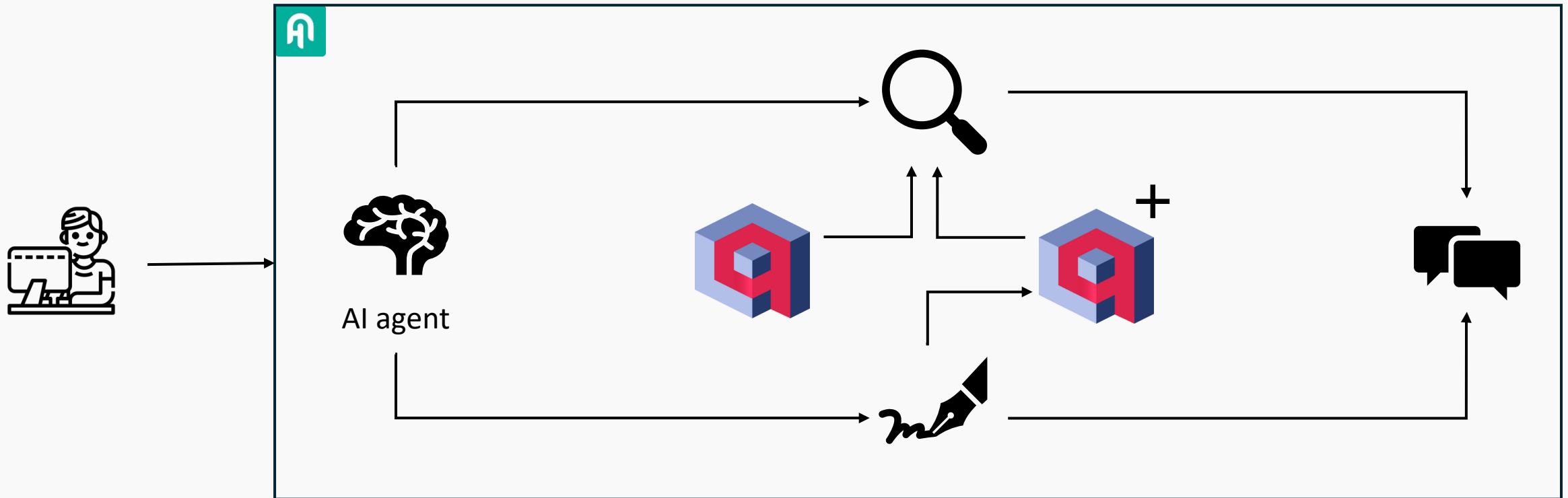




# Conversational tool



# Overview



# Conclusion

- Extra collection
- Knowledge merge at runtime
- Flexibility
- Reduced processing overhead
- Fast updates retrieval

# Thanks, questions?

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