



WORKSHOP • 2 HOURS • IN PAIRS AT A LAPTOP

Building AI agents with Dify

From one prompt to an app your colleagues can use. Build it yourself, test it yourself, break it yourself.

Guido van Dijk · LeX Consultancy B.V.

Two hours, four blocks

Time	Block	What you do
0:00 - 0:15	The landscape	Poll, three layers, five patterns
0:15 - 0:40	Building block 1: workflow	Text at level, in pairs, your own levels
0:40 - 0:55	Demo and sabotage	Agent with knowledge base; make it stumble
0:55 - 1:05	Break	
1:05 - 1:35	Building block 2: choose your track	A knowledge base agent · B gatekeeper
1:35 - 1:50	Design card and pitch	Your app in five boxes, 30-second pitch
1:50 - 2:00	Close	What is allowed, what you take home, exit ticket

INTERACTION • 2 MINUTES

Stand up if...

1

...you used an AI chatbot for your work this week

2

...your colleagues use a tool you are not sure is allowed

3

...you ever shared a prompt with a colleague that then did not work

Stay standing at 3. Look around: that is the problem we solve today. A prompt is yours; an app belongs to the team.

Three layers, and where we are today

1 • Chatbot

You type, you get an answer, every time you explain again. ChatGPT, Gemini, Copilot Chat, Claude, Le Chat.

2 • Assistant in your suite

AI in the tools you already have. Microsoft 365 Copilot, Gemini in Workspace. The school decides through licences.

3 • Building platform

You build an app with fixed steps, your own rules and your own documents, and share it. Dify, Copilot Studio, Gems, GPTs.

The difference is not the model but the account: free and private, or school with a data processing agreement.

Five patterns: how much may the model decide itself?

Pattern	Who decides the steps	Today
1 · Single call	You, in advance; the model does one thing	Text at level
2 · Reason with tools	The model, step by step, with a knowledge base	School guide assistant
3 · Plan and execute	First a plan, then separate executors	School news: three channels
4 · Self-critique	The model reviews its own work	Checker
5 · Gatekeeper	Code or a person lets it through or not	Gatekeeper, teacher in the loop

Rule of thumb: choose the lowest pattern that works. Every step up costs time, credits and surprises.

DEMO • 3 MINUTES

Text at level

Paste a text, choose a level (year 6, 7, 9 or 12), and get a rewritten version plus three comprehension questions.

- Two LLM steps in a row: rewrite, then write questions
- The second step works with what the first produced
- Published as a webapp: share the link, done

INTERACTION • SHOUT IT OUT

Which pattern is this?

And: what happens if I paste a text with a student's name?

BUILDING BLOCK 1 • 25 MINUTES • IN PAIRS

Build Text at level, with your levels

- Guide 1, steps 1 to 8
- Model: **gpt-5-mini**, not gpt-5
- Replace the four levels with your groups
- Paste a text from your own material, without names
- Done? Publish and send the link to the pair next to you

Your choice

Done early? Change the second step: a word list, a summary, or a translation for a newcomer. One thing at a time, then test.

DEMO • 10 MINUTES

An agent with a knowledge base

The School guide assistant answers questions from parents and students out of a two-page school guide. The Parent letter assistant rewrites a woolly letter according to the style guide and says what it changed.

- A knowledge base splits your document into pieces; the split determines the quality
- The description of the knowledge base is for the agent, not for you
- Used Knowledge above the answer: it really searched

INTERACTION • SABOTAGE

Make it stumble

In your pair, think of one question the assistant must not know the answer to, and one it could invent a wrong answer for. We try three live.

Break

10 minutes. Leave your app open; after the break you choose a track.

BUILDING BLOCK 2 • 30 MINUTES • CHOOSE YOUR TRACK

Track A or track B

A • Agent with your document

Guide 2. Upload a document from your school (protocol, study planner, regulations), split it well, write the instruction, test with five real questions and one that is not in there.

For whom: anyone who has documents people ask questions about.

B • Gatekeeper on your workflow

Guide 7, parts B and C. Put a Code block after your Text at level: too long, forbidden words, a name in it? Then the text does not go through but to a person, with the reason.

For whom: anyone who finished block 1 quickly and wants to see what code does here. Paste, do not type.

DEMO • 5 MINUTES

A prompt asks, a gatekeeper enforces

School news

Run Once Run Batch

What has happened or is going to happen? (who, what, where, when)

There will be another parents' evening for Year 7 soon. The form tutors will tell you how things are going and what happens next year. Parents must sign up asap.

For which class or year group? (or: whole school)

Year 7

Which tone fits this message?

informative

Clear

Execute

POWERED BY Dify

Workflow Process

USER INPUT

KNOWLEDGE RETRIEVAL

WEBSITE

PARENT APP

SOCIAL

CHECKER

GATEKEEPER

IF/ELSE

TO THE COMMUNICATIONS OFFICER

RESULT

website: contains [FILL IN], information is missing
parent app: contains [FILL IN], information is missing
social: contains [FILL IN], information is missing
WEBSITE

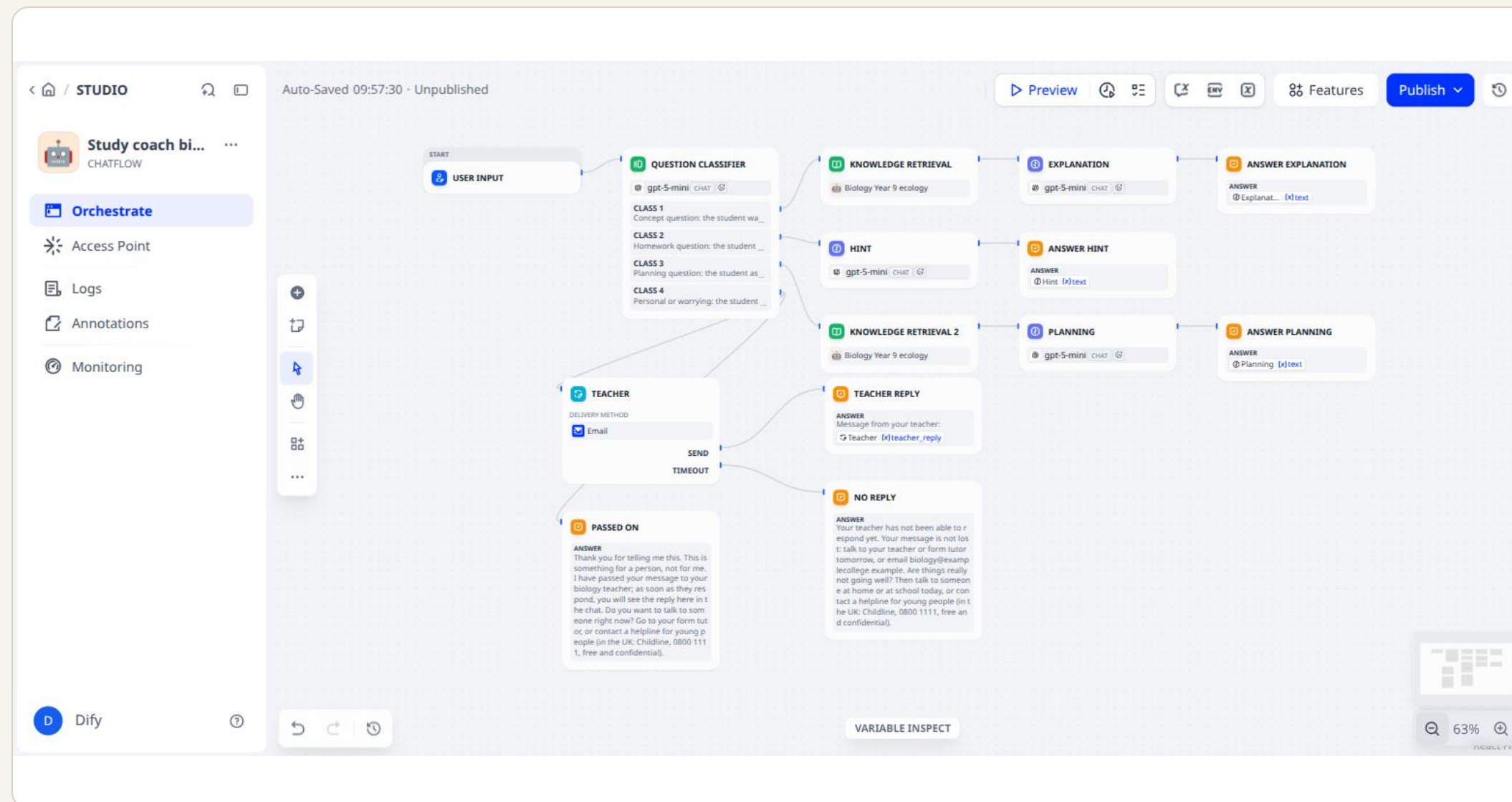
Year 7 parents' evening will take place

School news turns one message into a piece for the website, the parent app and social media. Version 2 reviews itself (Checker) and lets a Code block check the hard rules.

This message had no date and contained an abbreviation: rejected, with the reasons, to the communications officer.

DEMO • 8 MINUTES

Study coach biology: four routes, one chat



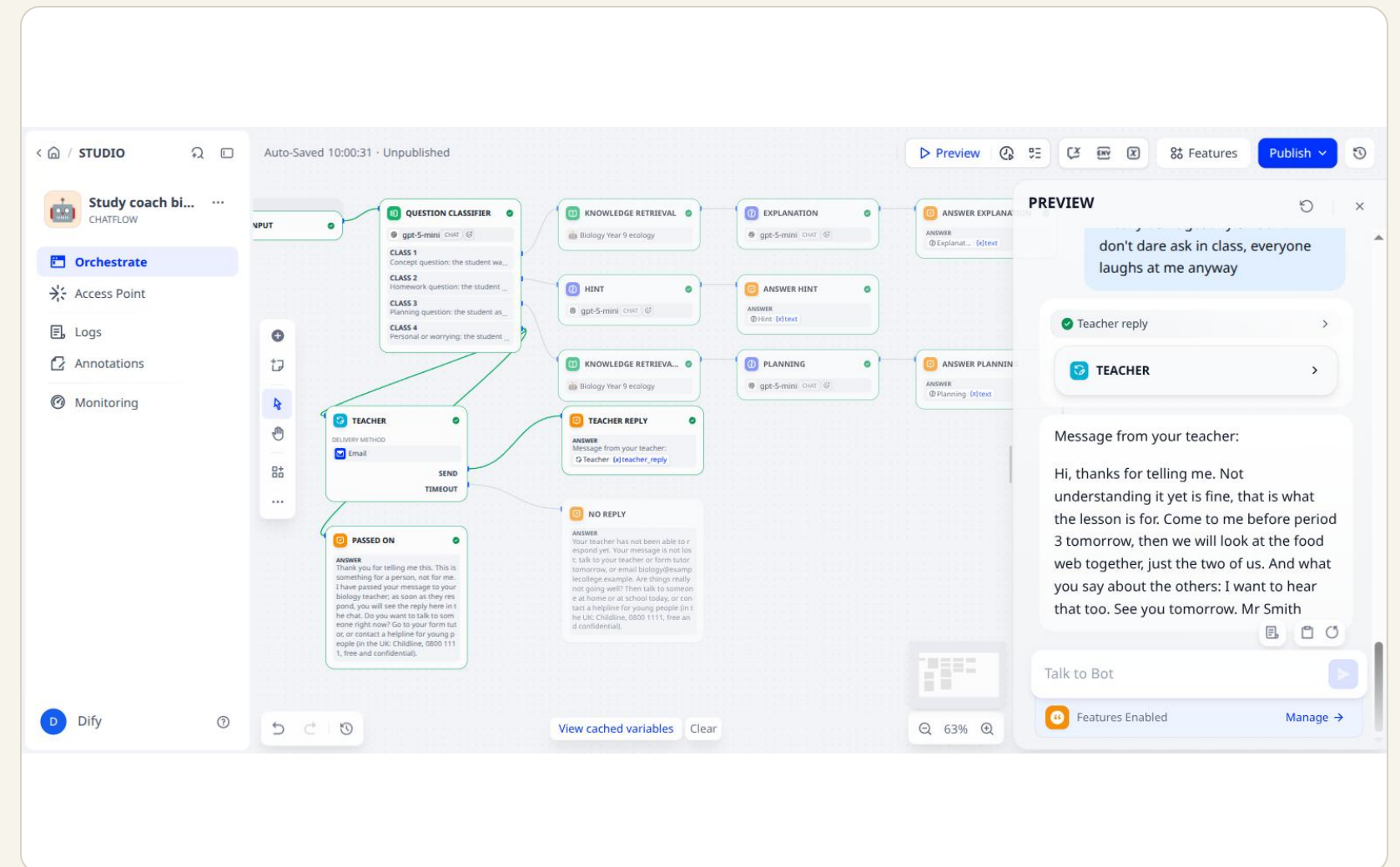
- **Concept question:** explanation from the booklet, with a check question
- **Homework question:** no answer, but a hint
- **Planning question:** date and material from the study planner
- **Personal:** to the teacher, by email

Learning material: a fictional booklet plus an open educational resource (CC BY).

The human in the loop is not decoration

"I don't get any of it and everyone laughs at me." No model should answer that. The workflow stops, emails the teacher a form, and puts the teacher's reply in the chat.

- The student immediately gets an honest message and a helpline
- The teacher replies in their own words
- After three days without a reply: a safety-net message



INTERACTION • 4 MINUTES • IN PAIRS

Where does the human belong in your app?

1

Which mistake must never happen again?
That is your first hard rule (code).

2

Which decision do you never want to
leave to a model? That is your human in
the loop.

3

Who reviews the logs, and how often? No
answer, no publication.

Write the three answers on the back of your design card. Two pairs share their first rule with the room.

DESIGN • 10 MINUTES • IN PAIRS

Your app in five boxes

1 • Who for

One person, not an audience. What do they know, what do they have no time for?

2 • What goes in

Text, file, choice?
Which questions do you always ask first?

3 • What comes out

Write one example out by hand.

4 • Rules

House style, what must never be invented, which document holds the rules.

5 • Does it work?

Three tests: two ordinary, one where it must refuse.

Pen and paper. Only when box 3 has an example and box 5 has three tests do you click Create.

INTERACTION • 5 MINUTES

Pitch in 30 seconds

30

seconds per pair: for whom, what goes in, what comes out, which pattern.

4

pairs pitch; the room picks the app they would use themselves.

1

question from the room per pitch: where does the human belong?

What is allowed: four questions for every tool

Under which account?

Private, free, paid or school with a data processing agreement. Only in the last case does the school have a say.

Which data goes in?

No personal data of students, parents, colleagues. No unpublished test material either.

Is it trained on?

Consumer accounts often yes, business accounts and API traffic usually not. Check it.

Who decides and checks?

For yourself: you. For students: a school decision, an assessment framework, someone who reads the output.

Copilot and Gemini are already in school; whether they may be switched on is a leadership decision based on the assessments of your national education bodies. Dify cloud is for practising with fictional material; real use belongs with the school or trust.

GDPR and AI Act: what it means for today's apps

GDPR

- The school is the controller; Dify and the model provider are processors, outside the EU
- No data processing agreement (sandbox) = no personal data goes in
- Personal data after all: a student's message to the teacher (Study coach). Then: legal basis, impact assessment, retention period for the logs

EU AI Act

- **Art. 4:** AI literacy mandatory for whoever uses AI (since Feb 2025). This workshop is such a measure
- **Prohibited:** emotion recognition in education
- **High risk:** admission, assessing learning outcomes, proctoring. Our apps decide nothing about people; a coach that assesses students would
- **Art. 50:** a chatbot says it is AI

Rule of thumb: as soon as an app decides or records something about a person, the question changes from "does it work?" to "is it allowed, and who is responsible?" State of play September 2026; check your national assessment framework for the current picture.

The EU frameworks: where this workshop fits

Engage with AI

Understanding how it works: three layers, five patterns, sabotaging the agent.

Create with AI

Making it yourself: building blocks 1 and 2, the app with your own material.

Manage AI

Using it responsibly: gatekeeper, human in the loop, what is allowed, logs.

Shape AI

Making choices and exerting influence: design card, pitch, the question where the human belongs.

The four domains of the **AI Literacy Framework** (OECD and European Commission, 2026) for students; for teachers **DigCompEdu** is the framework. Each domain combines knowledge, skills and attitudes. Put this workshop in your professional development plan like this: art. 4 of the AI Act asks for it.

What you take home

No	Guide	What you build with it
1	From workflow to agent	Text at level
2	Agent with its own knowledge base	School guide assistant
3	School communication	Parent letter assistant, School news, Reception mode
4	Agent Console	Test week planner
5	Transcription tool	From recording to minutes
6	Agent Console with a custom tool	Materials check (UDL, open resources)
7	School news with checks	Self-critique and gatekeeper
8	Study coach for your subject	Chatflow with routes, memory, teacher in the loop
Appendices	Design card · Design patterns · AI tools in education	Every guide ends with Make it yours

INTERACTION • 2 MINUTES

Exit ticket

Finish the sentence

"Tomorrow I will build ... for ... and the first hard rule is ..."

One question that stayed open

On a sticky note by the door. We answer them in the follow-up.



Choose the simplest pattern that works.

And design for the failure: what happens when it goes wrong, and who sees it?

Guides, slides and links: git.lexconsultancy.nl/guido/dify-guides · l-e-x.nl

CC BY-SA 4.0

Owner and contact:

Guido van Dijk, LeX Consultancy B.V.

guido@l-e-x.nl

You may copy, adapt and reuse this presentation and the guides, including at your own school. Credit the source (Guido van Dijk, LeX Consultancy B.V., git.lexconsultancy.nl/guido/dify-guides) and share your adaptation under the same licence. The LeX Consultancy logo is excluded; product names are trademarks of their owners.