

Build Your Own AI Assistant:

Creating Custom Chatbots with Google Gemini

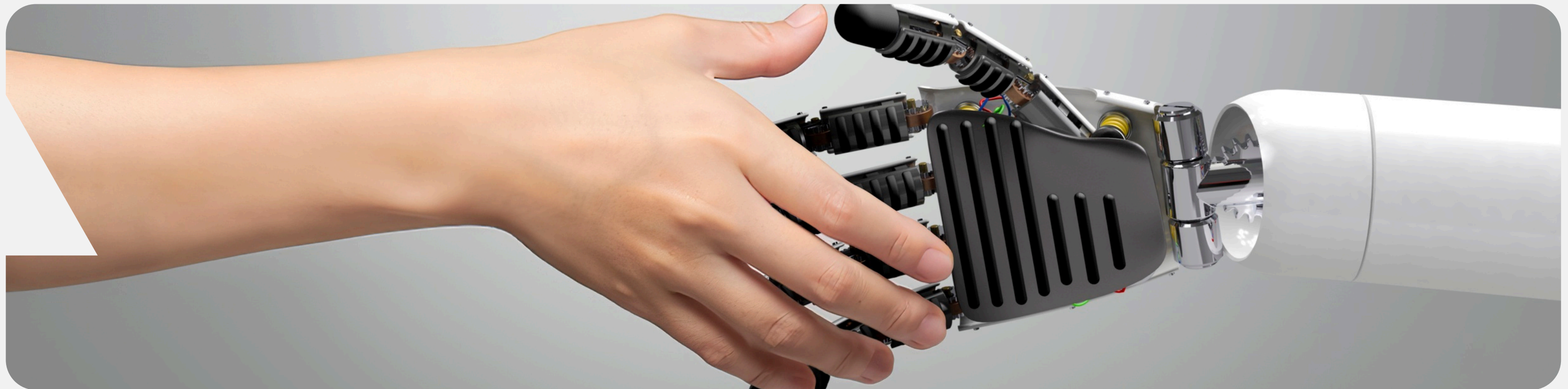
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Why do we need to integrate AI into teaching?

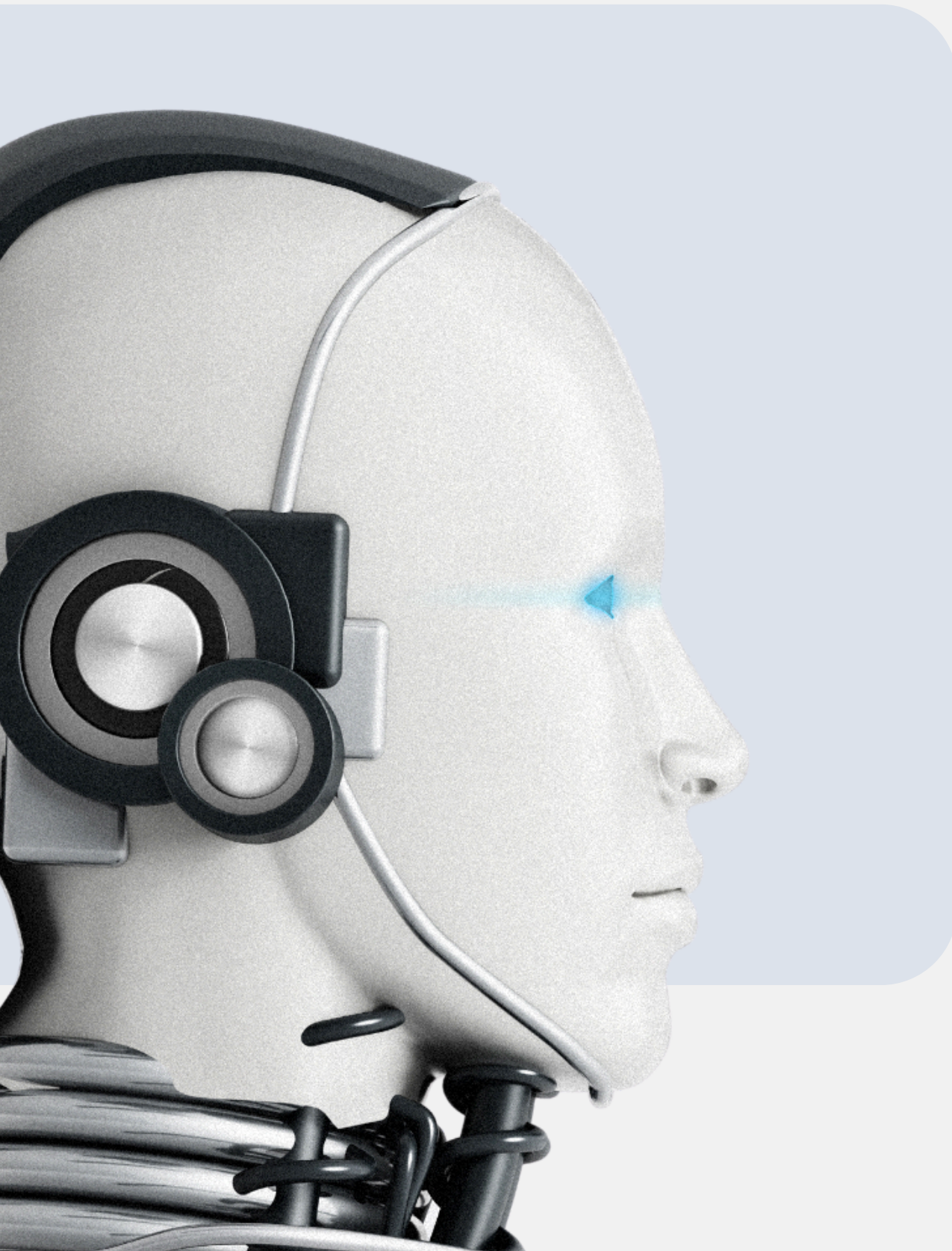


Let's look at the generations we currently educate and will be educating..

Gen Z and Gen Alpha

Who are they?

- Gen Z (born mid-1990s to early 2010s), the first true digital natives, were shaped by the internet, social media, and mobile technology, making them skilled multitaskers but vulnerable to cyberbullying and privacy risks.
- Gen Alpha (born 2010 onward) is growing up with AI, machine learning, and IoT fully embedded in daily life, raising concerns about cognitive development and digital privacy from an even younger age (Leyts, 2024).



Gen Z

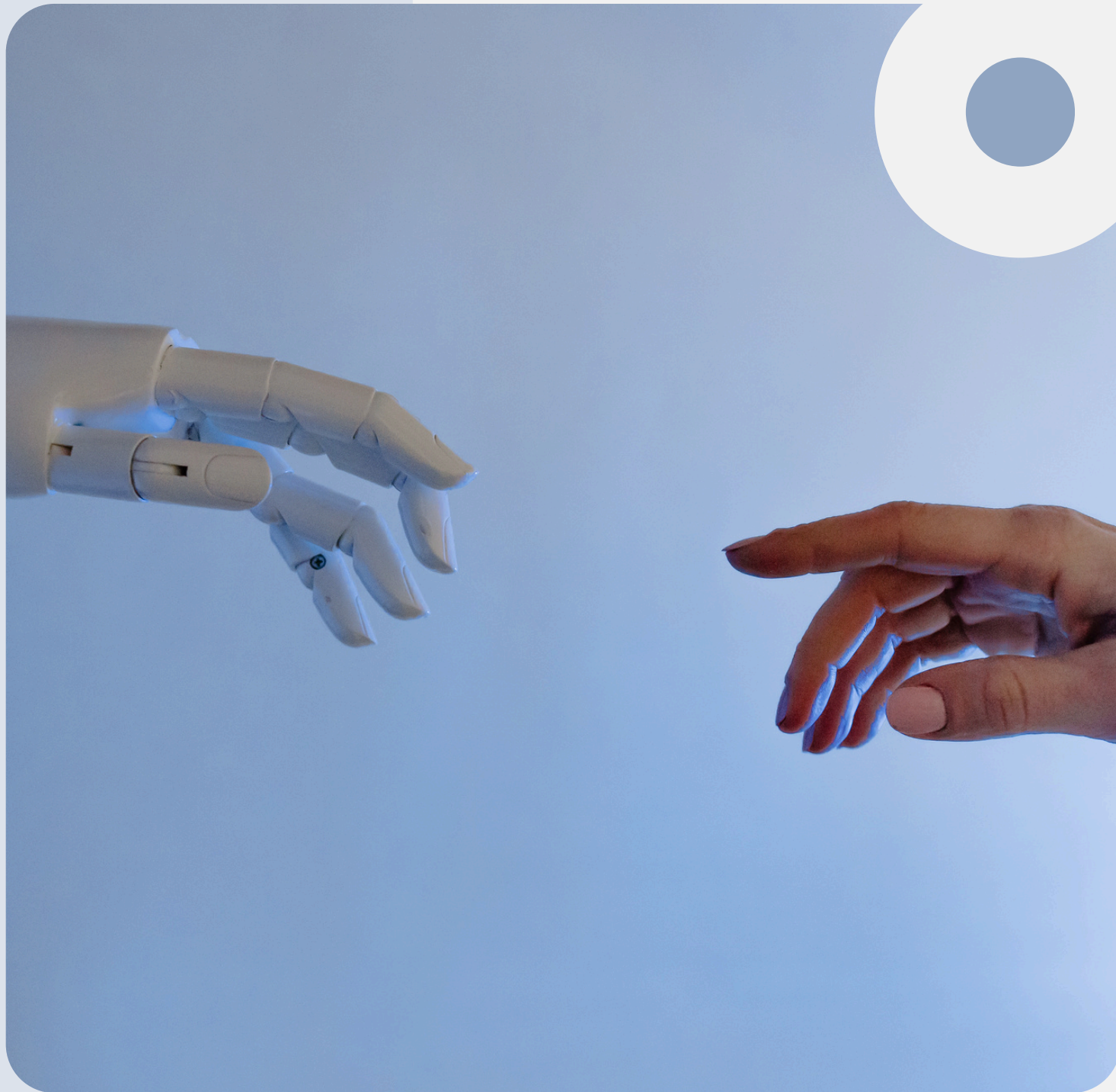
How do they prefer to learn?

Gen Alpha

- visual
- interactive
- self-paced learning
- hands-on learning (Leyts, 2024).



- immersive with the help of AI, VR, and AR
- personalized learning (Leyts, 2024).



VR and Gen Alpha

My daughter is playing a VR application after 5 minutes of interacting with the VR headsets and the system...



One way to meet the learning needs
of both generations is...



**to build and use an
AI Chatbot.**



Google Gemini

**We will be creating
a custom gem or
chatbot.**

A Gem is a custom AI assistant you create inside Google Gemini.

You give it a name, a personality, and a specific purpose – and it remembers those instructions every time you use it.

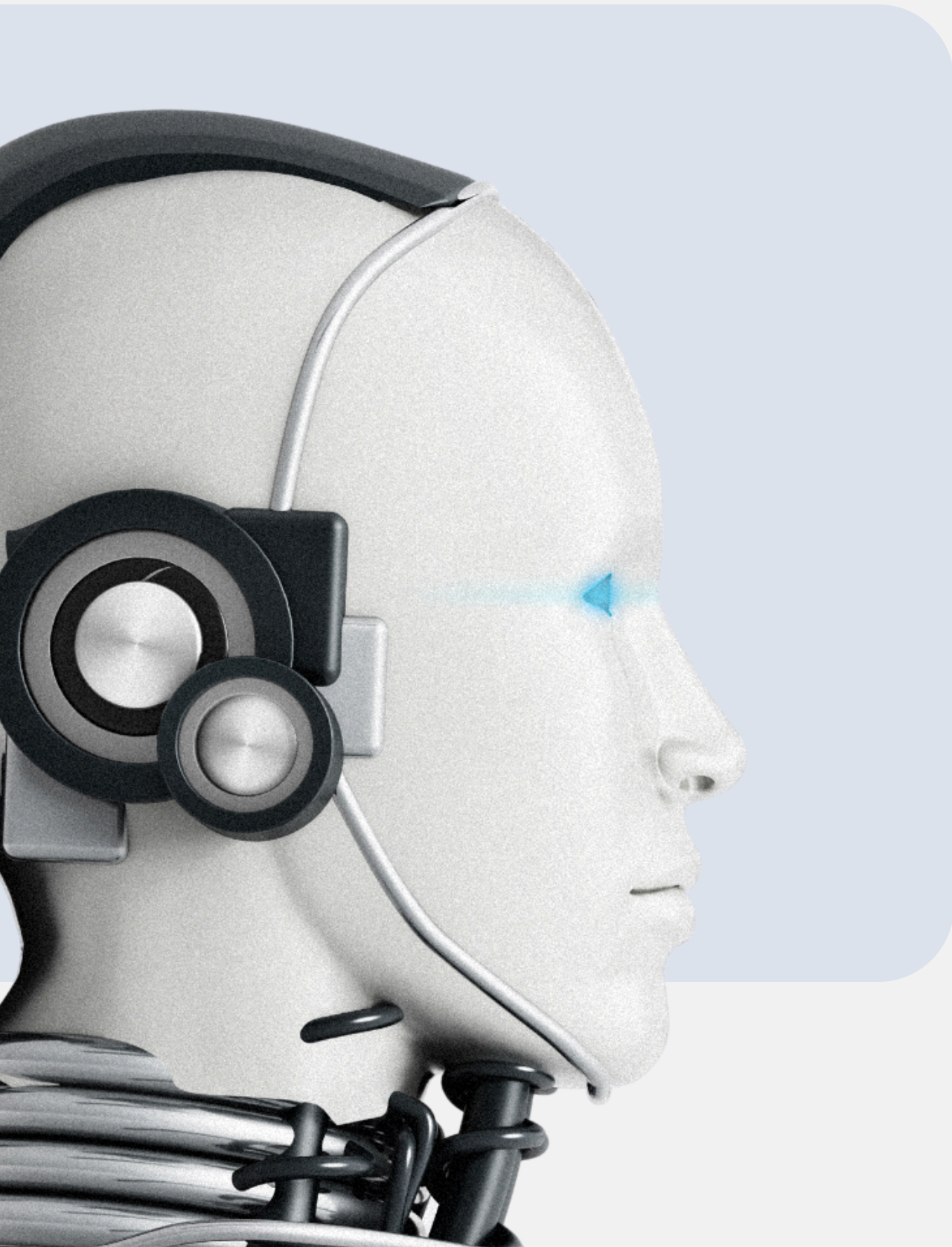
No coding needed!

Google Gemini

What COULD Be OER in Your Chatbot

Component	Could be OER?
Your custom prompts and instructions	✓ Yes — license them openly
Your interface/wrapper code	✓ Yes — release under Apache 2.0 or similar
Educational content you feed it	✓ Yes — if openly licensed
Lesson plans built around it	✓ Yes — CC license them
The Gemini model itself	✗ No
The API access	✗ No

Google Gemini



How to get there?

- Open your web browser (Chrome works best)
- Search for Google Gemini
- Sign in with your Google account
- Look for "Gems" in the left sidebar menu

Create a New Gem

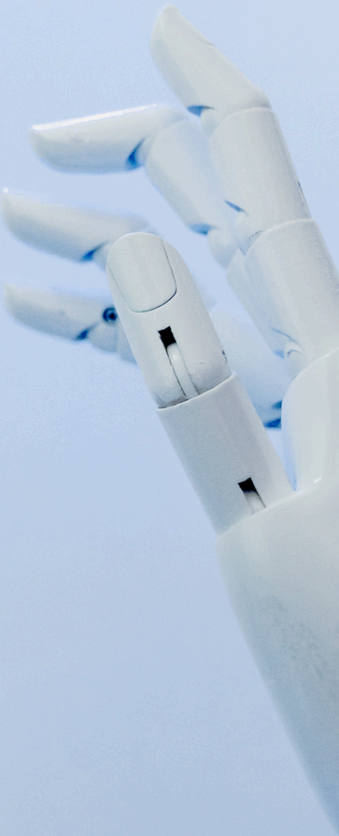
Step 1: In the Gemini sidebar, click on "Gems".

Step 2: Click the "+ New Gem" button.

Step 3: A Gem editor will open with fields to fill in.

What you will see in your Gem's editor:

- **Name** - Give your Gem a clear name, e.g., 'Math Helper for 5th Grade.'
- **Instructions** - Tell the Gem how to behave, what to focus on, and how to talk to users
- **Knowledge Base** - Upload files or documents that the Gem can refer to



Testing Your Gem

1. Use the preview chat panel on the right side of the editor.
2. Type a message as if you were a student.
3. Check: Does the Gem respond correctly?
4. Does it use the right tone and language?
5. Adjust your instructions and test again.

Saving Your Gem

1. Click "Save" in the top right.
2. Find it under "My Gems."
3. Share with colleagues.

Tip: Edit your Gem anytime! Click the pencil icon next to your Gem name to update instructions.



Classroom Ideas for Your First Gem

Reading Buddy

Grades K–3

Reads short stories aloud (via text), asks comprehension questions in simple language, and encourages young readers.

Math Coach

Grades 4–8

Walks students through problem-solving steps without giving away answers. Uses grade-appropriate examples.

History Explorer

Grades 6–12

Answers questions about historical events, explains causes and effects, and sparks debate with open-ended questions.

Writing Helper

All Grades

Gives feedback on student writing, suggests improvements in tone and structure, and helps brainstorm ideas.

Science Q&A

Grades 3–12

Explains science concepts at the right level, defines vocabulary, and encourages curiosity about the world.

Language Practice

ESL/ELL

Practices conversation in English (or another language), corrects grammar gently, and builds vocabulary.

Quick Recap

1. Open Gemini

GO TO GEMINI.GOOGLE.COM AND SIGN IN.

2. Click + New Gem

FIND GEMS IN THE SIDEBAR AND CREATE A NEW ONE.

3. Name & Instruct

GIVE YOUR GEM A CLEAR NAME AND DETAILED INSTRUCTIONS.

4. Test it

CHAT WITH YOUR GEM IN THE PREVIEW PANEL AND REFINE.

5. Save & Use

SAVE YOUR GEM AND START USING IT IN YOUR CLASSROOM!

Thank you!

Questions?

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References



Leyts, M. (2024, July 20). Generations Z and Alpha: A generational look at Gen Z, Generation Alpha, Millennials, and the Gen Z and Gen Alpha connection - Birth years, FAQs, and future outlook. *Generation ZALPHA*.

<https://www.generationzalpha.com/blog/generations-z-and-alpha>

