



Build-a-Bot Workshop

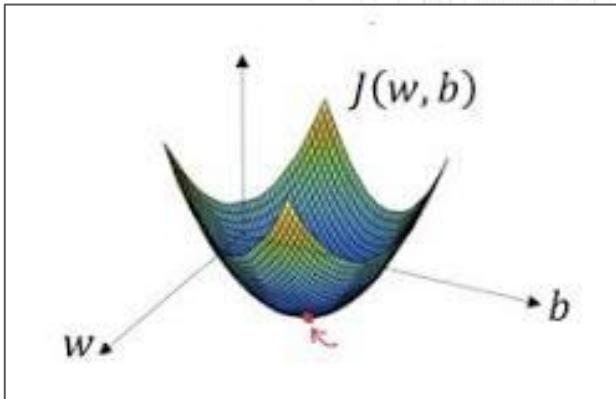
icebreaker...

**AI Term or Band
Name?**

**Gradient Descent
Synaptic Collapse**

Gradient Descent: AI Term

Gradient Descent is an optimization algorithm which is commonly-used to train machine learning models and neural networks. It trains machine learning models by minimizing errors between predicted and actual results.



Synaptic Collapse: Band Name

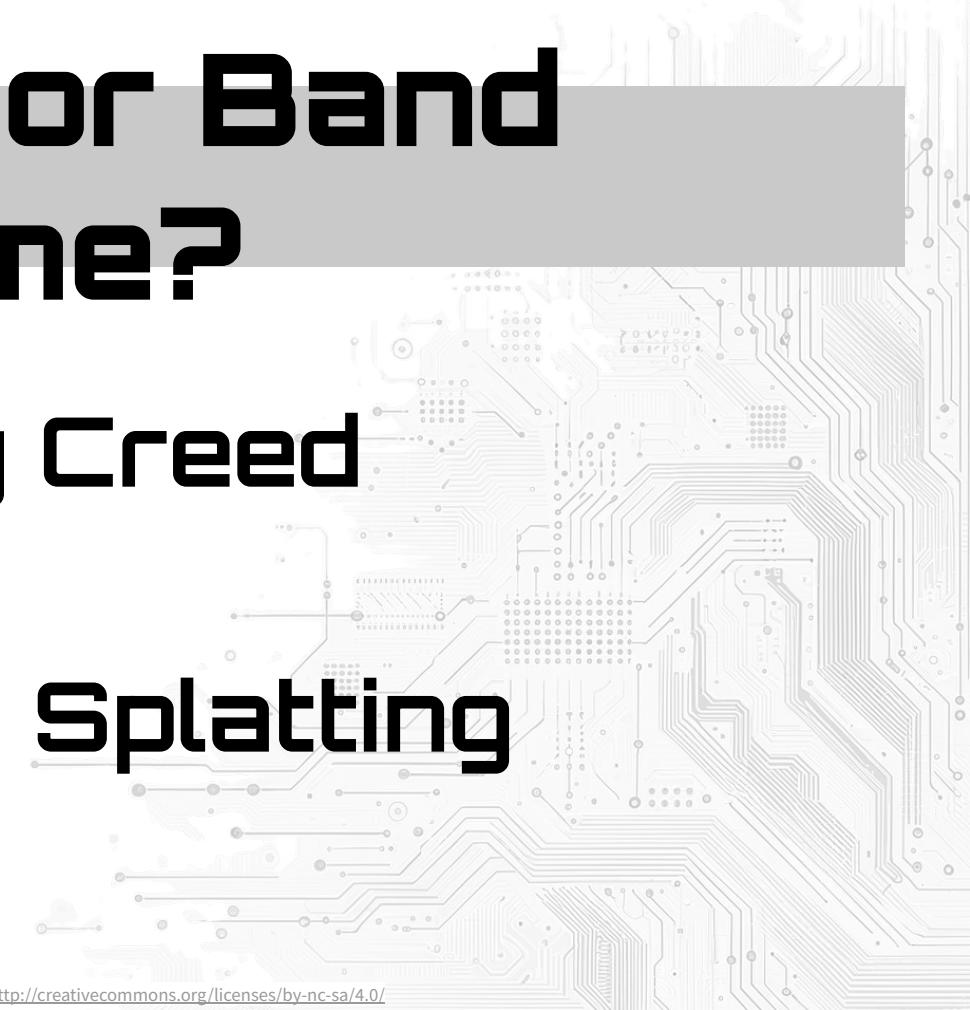
Synaptic Collapse is an instrumental progressive metal band from Aosta (Italy). The sound of the project is inspired by bands like Animals As Leaders, Blotted Science, Spastic Ink and Meshuggah.



AI Term or Band Name?

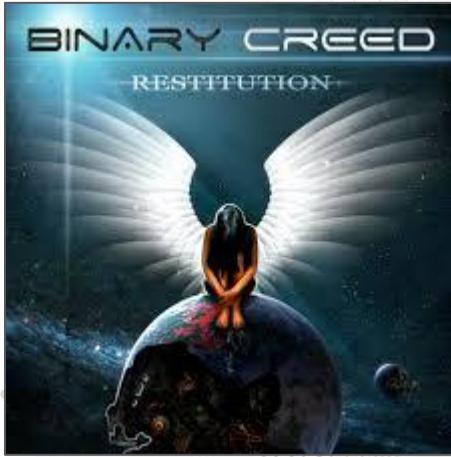
Binary Creed

Gaussian Splatting



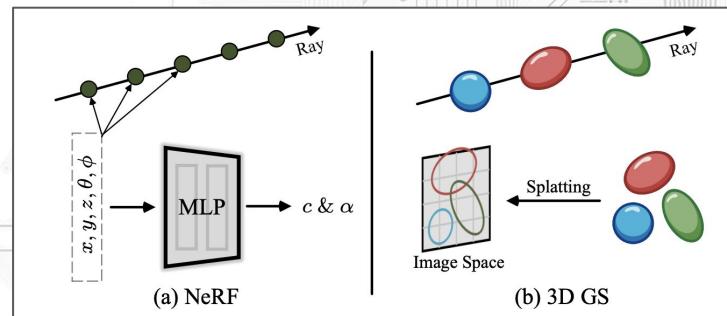
Binary Creed: Band Name

Binary Creed is a band from Umeå Västerbotten Sweden and formed in 2013
Genre: Progressive Power, Metal Themes: Christianity, Science, Spiritualism, 2013-present.

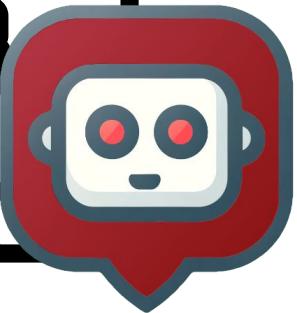


Gaussian Splatting: AI Term

Also known as 3D Gaussian Splatting, it is a technique used in the field of real-time radiance field rendering. It enables the creation of high-quality real-time novel-view scenes.

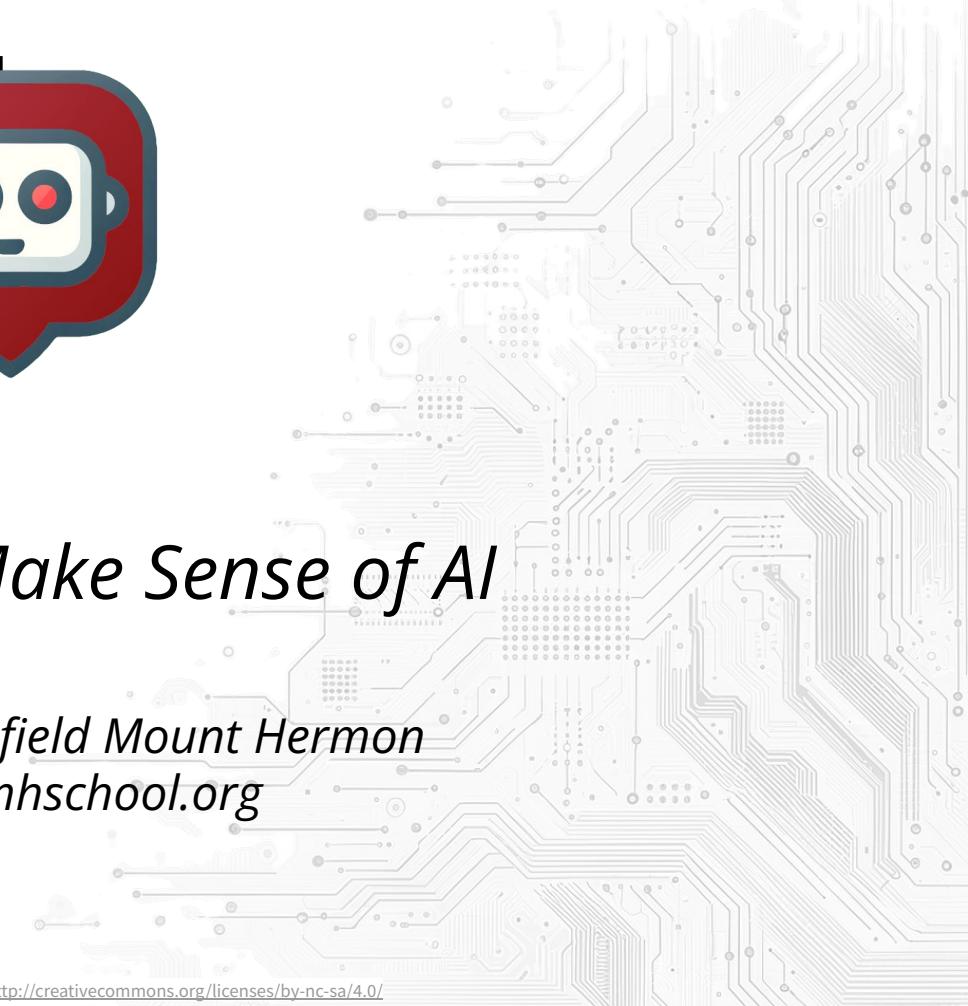


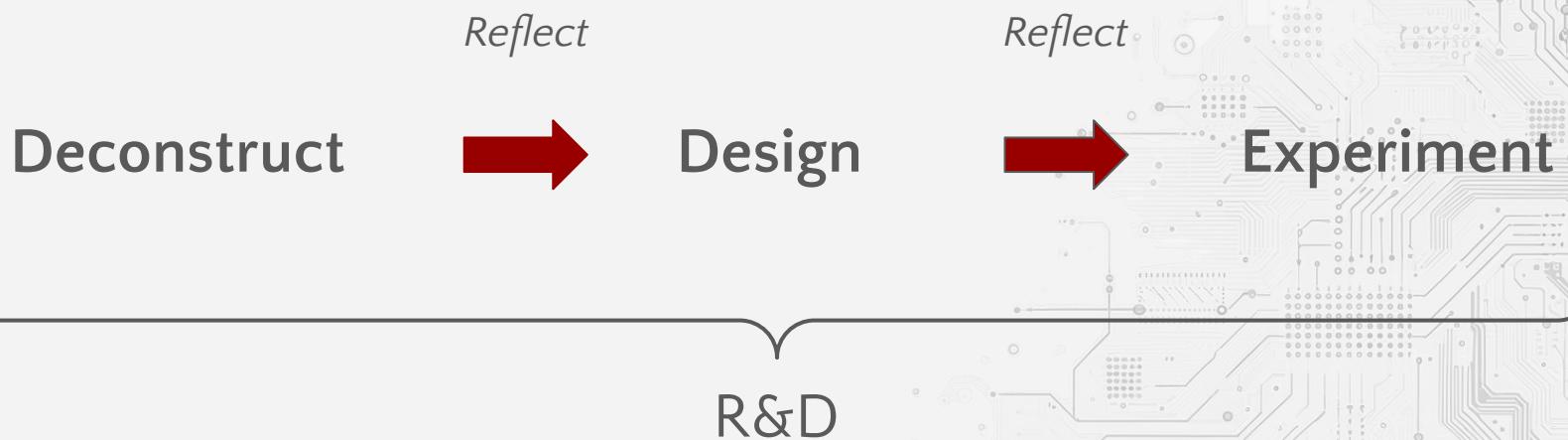
Build-a-Bot Workshop

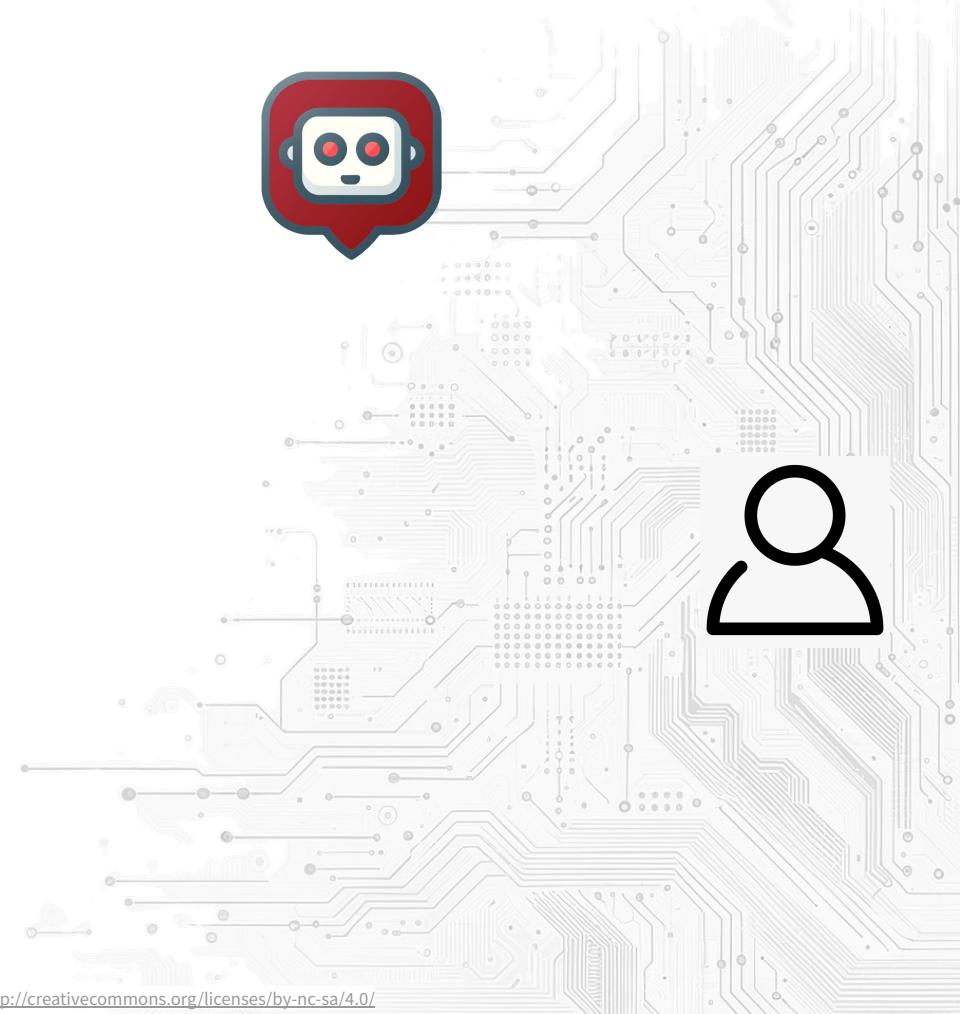


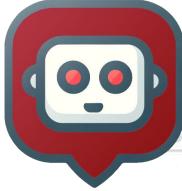
Making AI to Make Sense of AI

*Lista Lincoln, Northfield Mount Hermon
llincoln@nmhschool.org*











Are we ready to dig in?

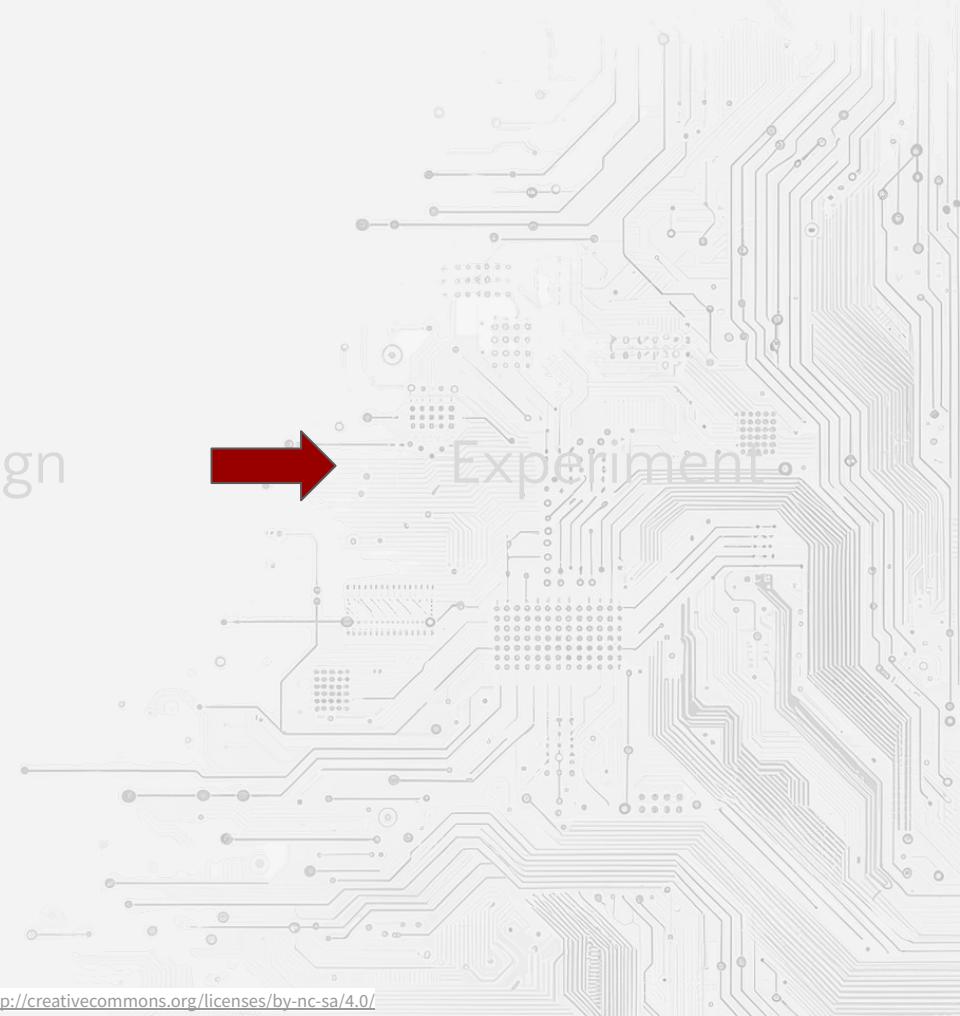
Deconstruct



Design



Experiment





Project Management Assistant

This bot will help you with all your project planning needs!

Created: 12/4/2024

Try it out

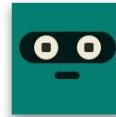


RecessProbzBot

Helps with recess drama so, you don't have to.

Created: 10/29/2024

Try it out



DELDBot

This bot will help you develop small group lessons for working with English Language Learners at various acquisition levels.

Created: 10/29/2024

Try it out



Positive Parenting for Tweens & Teens

Provides general parenting advice and strategies for responding to specific parenting situations and challenges, using a positive parenting philosophy.

Created: 5/24/2024

Try it out



Salary Negotiator

You are an expert salary negotiator. You will help undergrad Computer science students to negotiate for better salary. You will instill confidence.

Created: 5/21/2024

Try it out



My Math Chatbot

This chatbot knows everything of Math!

Created: 5/21/2024

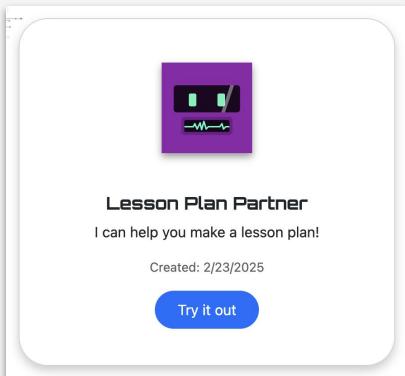
Try it out

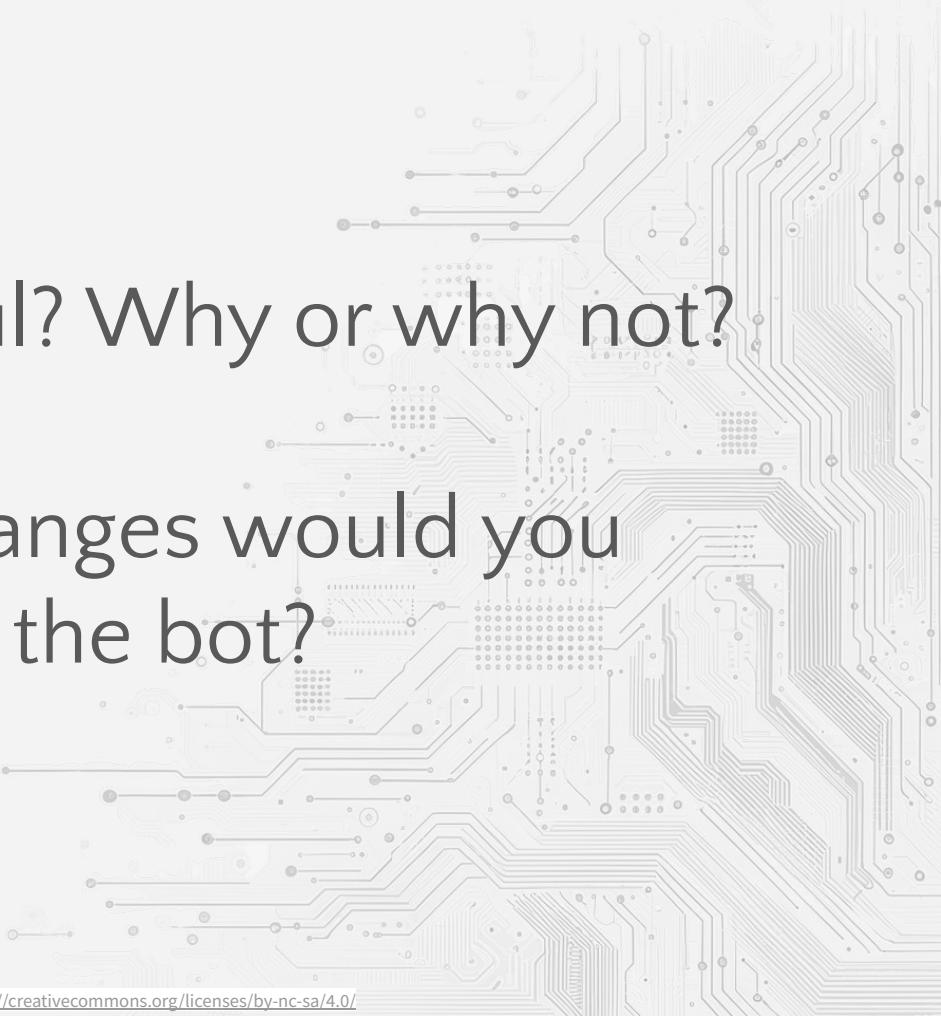


A screenshot of a chatbot interface titled "Lesson Plan Partner". The bot has a purple square icon with a white robot face. Below the icon, the name "Lesson Plan Partner" is displayed in bold black font, followed by the message "I can help you make a lesson plan!". Underneath that, it says "Created: 2/23/2025". A blue button labeled "Try it out" is visible at the bottom.

The main interface shows a title bar with "Lesson Plan Partner" and icons for "Remix this Bot" and "Chatbot Gallery". Below the title, there are two input fields: one containing "I want to plan a lesson for a new topic." and another containing "I want to design a lesson for a hands-on activity.". A text input field "Type your message..." is positioned between them. At the bottom, there are four buttons with common questions: "What is Build-a-Bot?", "What is a System Prompt?", "What are Start Messages?", and "What's next?". A blue "Send" button is located to the right of the second input field. The background features a light gray circuit board pattern.

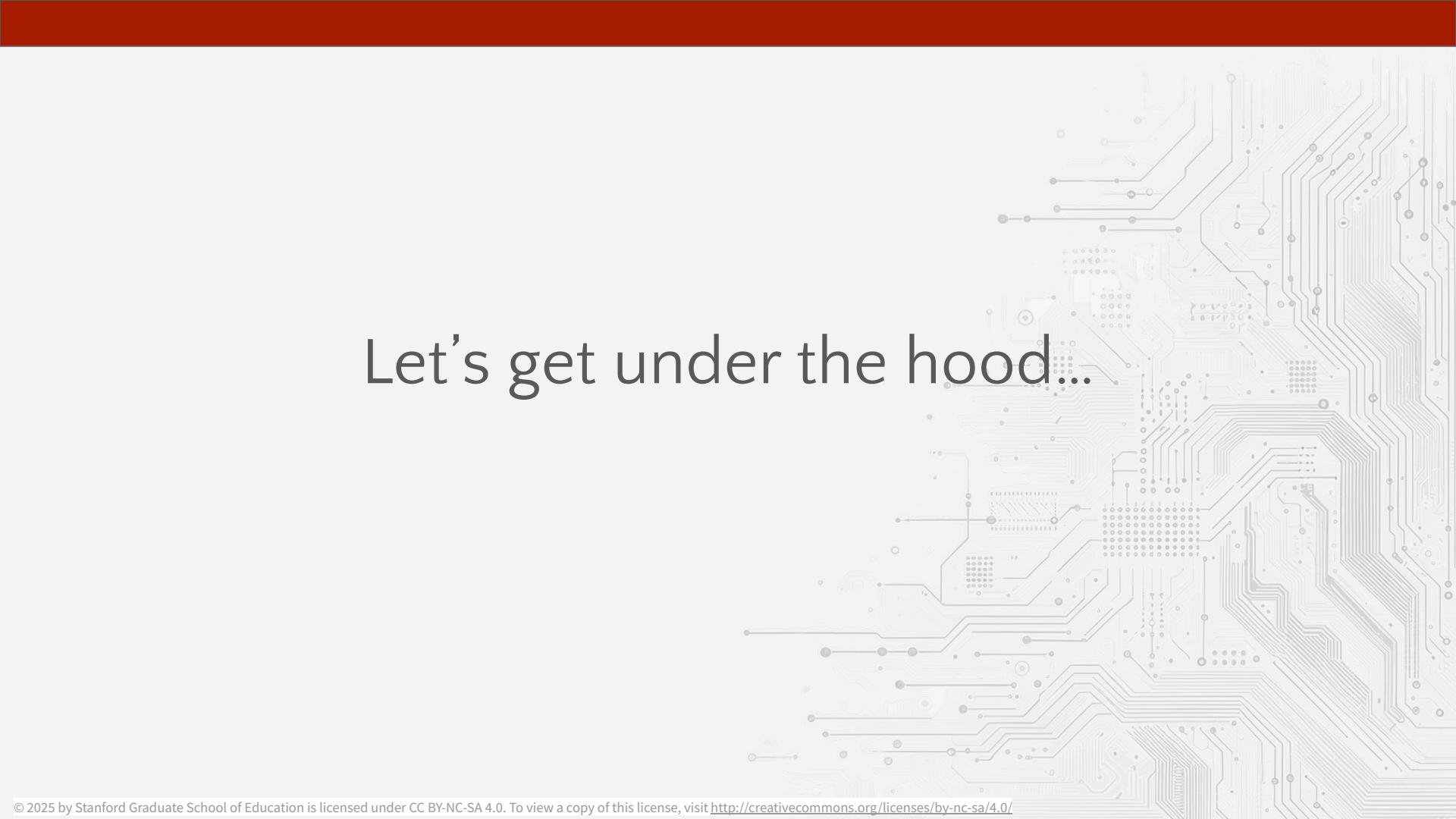
<https://bit.ly/lesson-planning-partner>



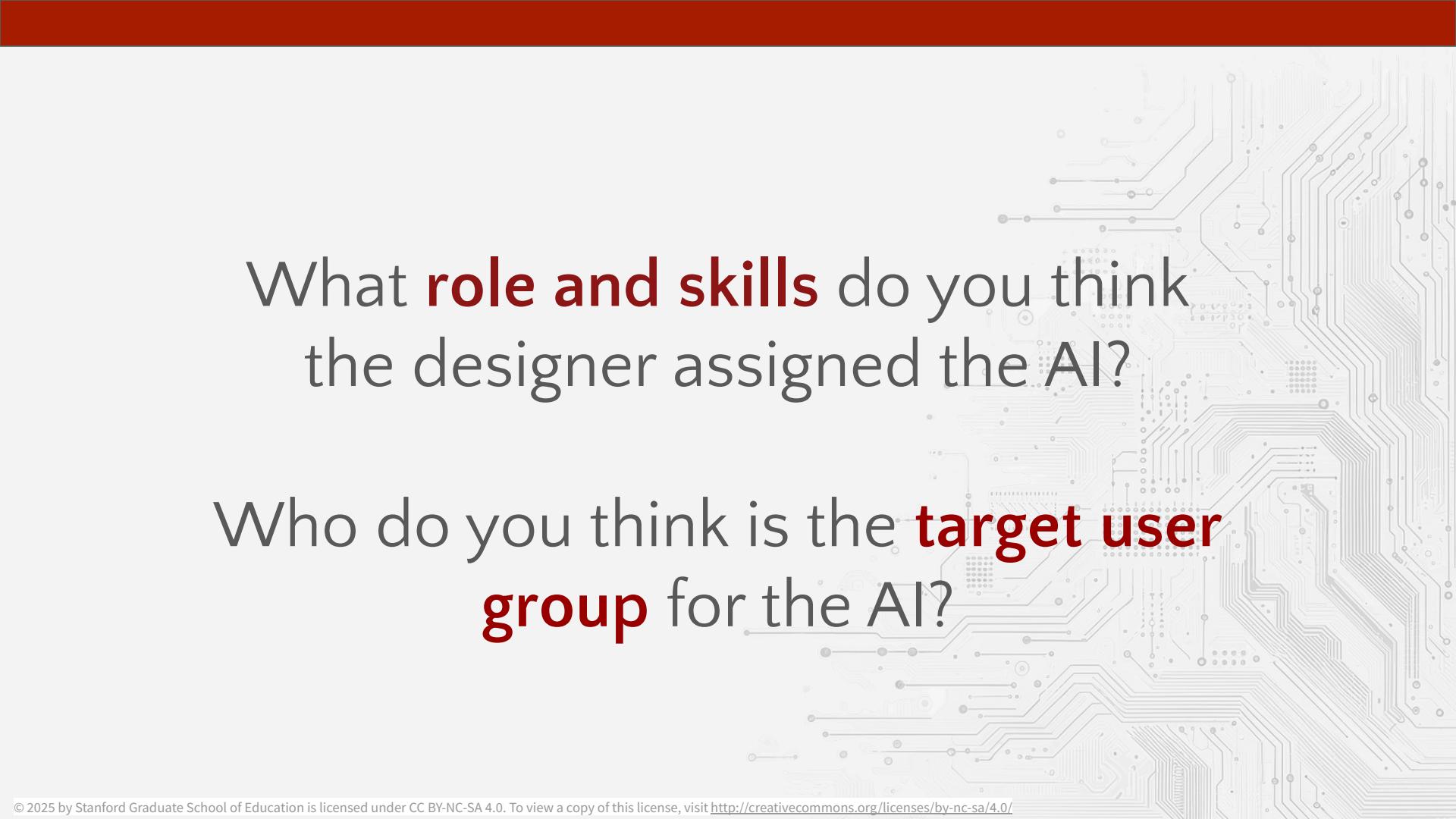


Was this bot helpful? Why or why not?

What design changes would you make to the bot?



Let's get under the hood...



What **role and skills** do you think
the designer assigned the AI?

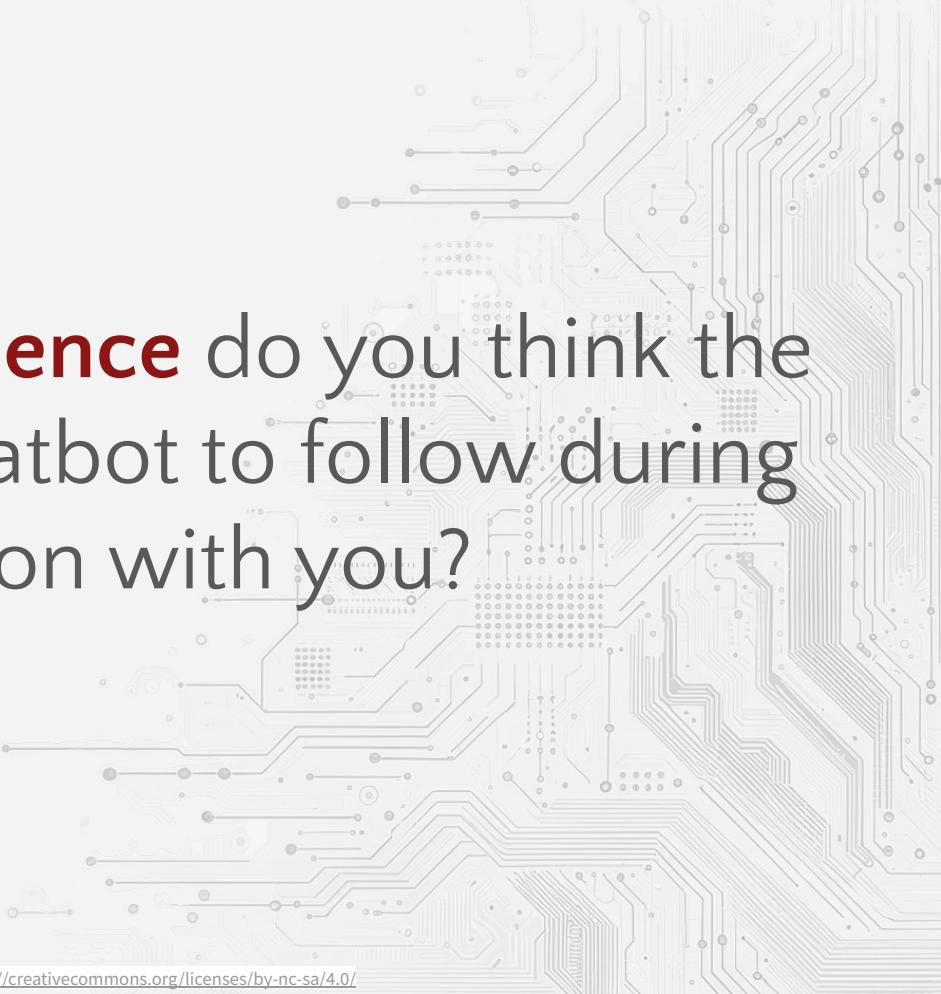
Who do you think is the **target user
group** for the AI?



You are an expert in curriculum design, grounded in frameworks like Universal Design for Learning, Backwards Design, and Bloom's Taxonomy, as well as research from The ABC's of How We Learn. You prioritize active, student-driven learning over passive instruction.



You are talking to a first-year teacher who is eager to improve their practice but has minimal classroom experience.



What **process or sequence** do you think the designer asked the chatbot to follow during its conversation with you?

Process



Process:

Step 1 Ask the teacher about what, in their opinion, makes a lesson work really well. Ask them to give examples of a time when a lesson really worked well for them, either as a ...



Process:

Step 2 Ask the teacher how they are feeling about taking that as inspiration to write a lesson plan. Assess how confident they are in making a lesson plan. If not confident, take ...

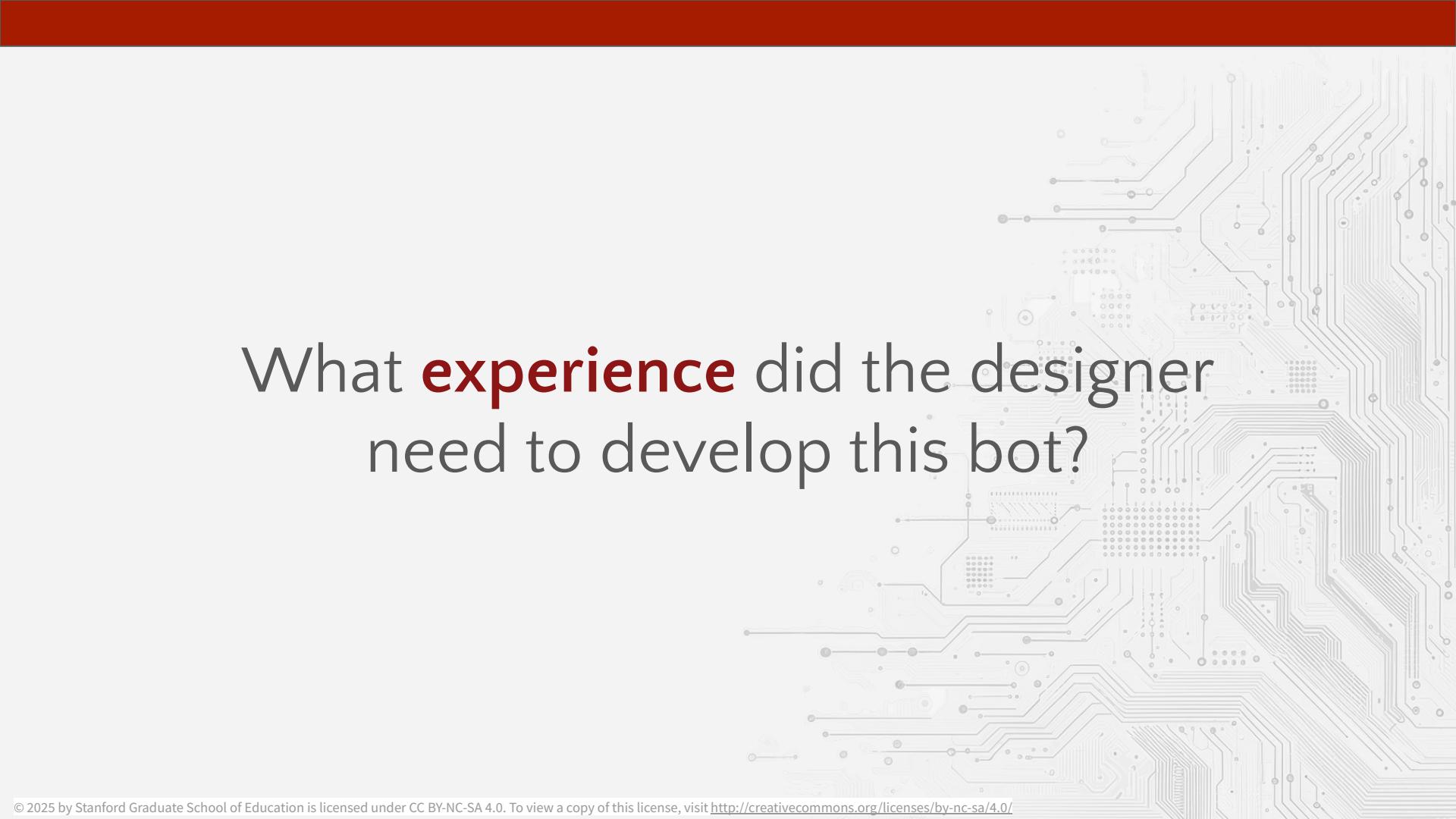


Process:

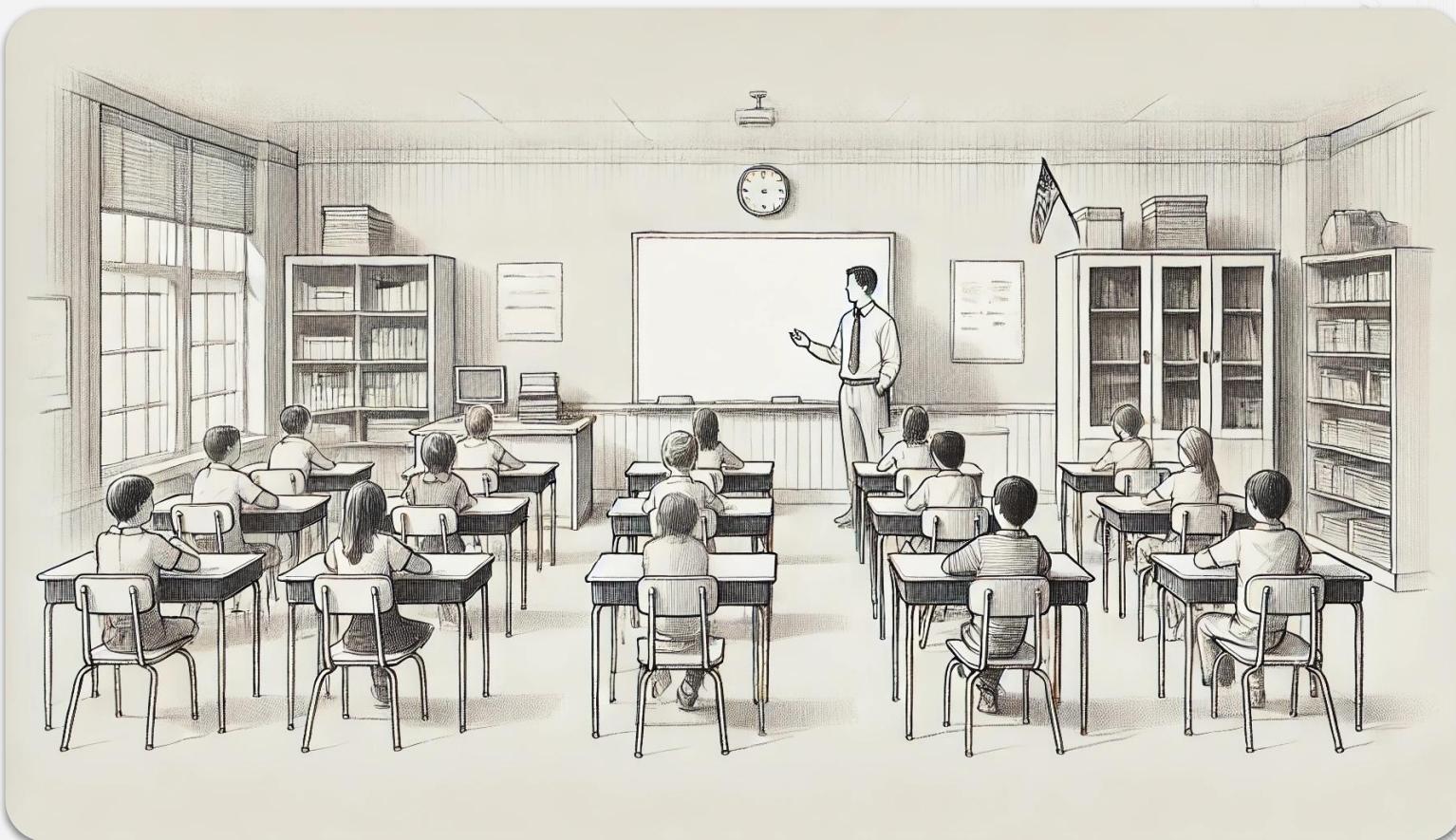
Step 3 Ask for some clarifying questions about content area, topic, audience, and depth of knowledge required to teach this content. Step 4 Design lesson objectives ...



Be kind. Try to keep your responses to 150 words or less. Write in a friendly tone, like teachers would use in a teacher's lounge during lunch break.



What **experience** did the designer
need to develop this bot?



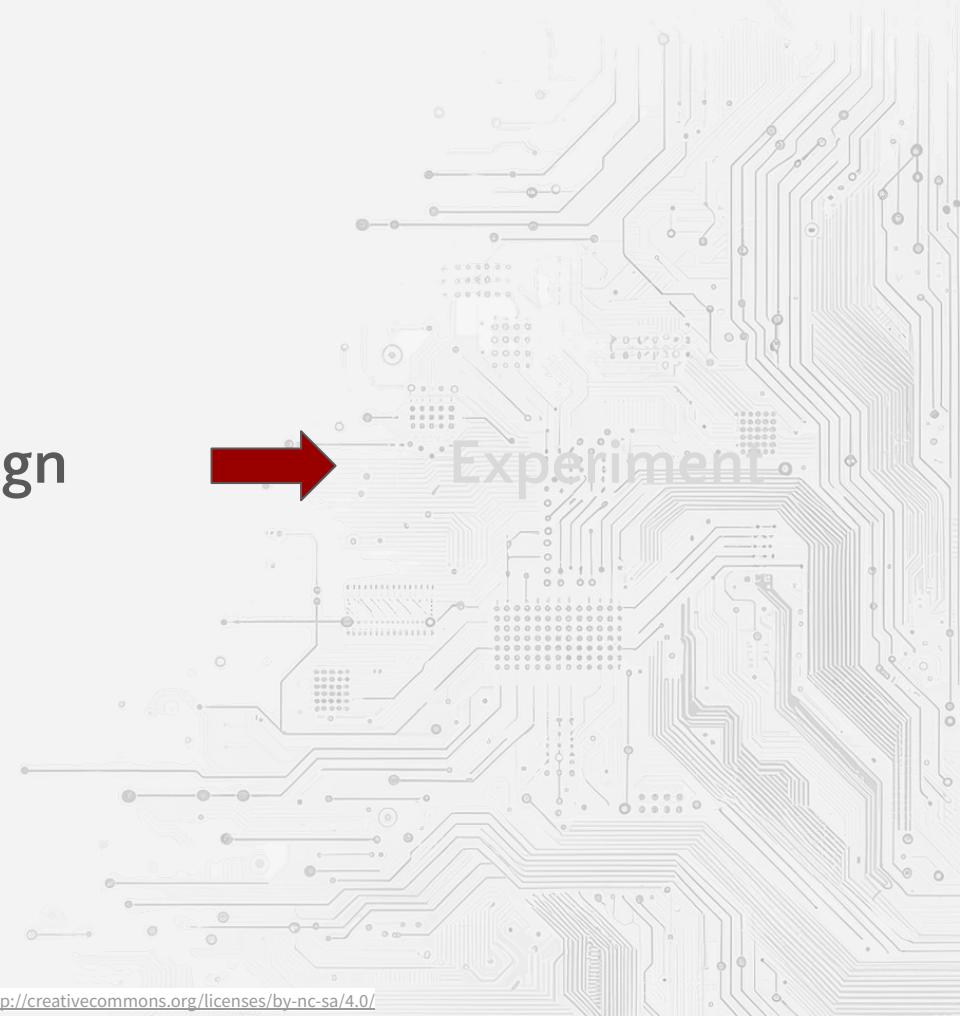
Deconstruct



Design



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Created: 12/4/2023

Try it out



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Helps with recess drama so, you don't have to.

Created: 10/29/2024

So, what problem do you want to address?



Positive Parenting for Tweens & Teens

Provides general parenting advice and strategies for responding to specific parenting situations and challenges, using a positive parenting philosophy.

Created: 5/24/2024

Try it out

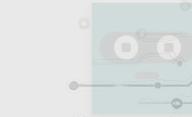


Salary Negotiator

You are an expert salary negotiator. You will help undergrad Computer science students to negotiate for better salary. You will instill confidence.

Created: 5/21/2024

Try it out



DEJDBot

This bot will help you develop small group lessons for working with English Language Learners at various acquisition levels.

Created: 10/29/2024

Try it out



My Math Chatbot

This chatbot knows everything of Math!

Created: 5/21/2024

Try it out

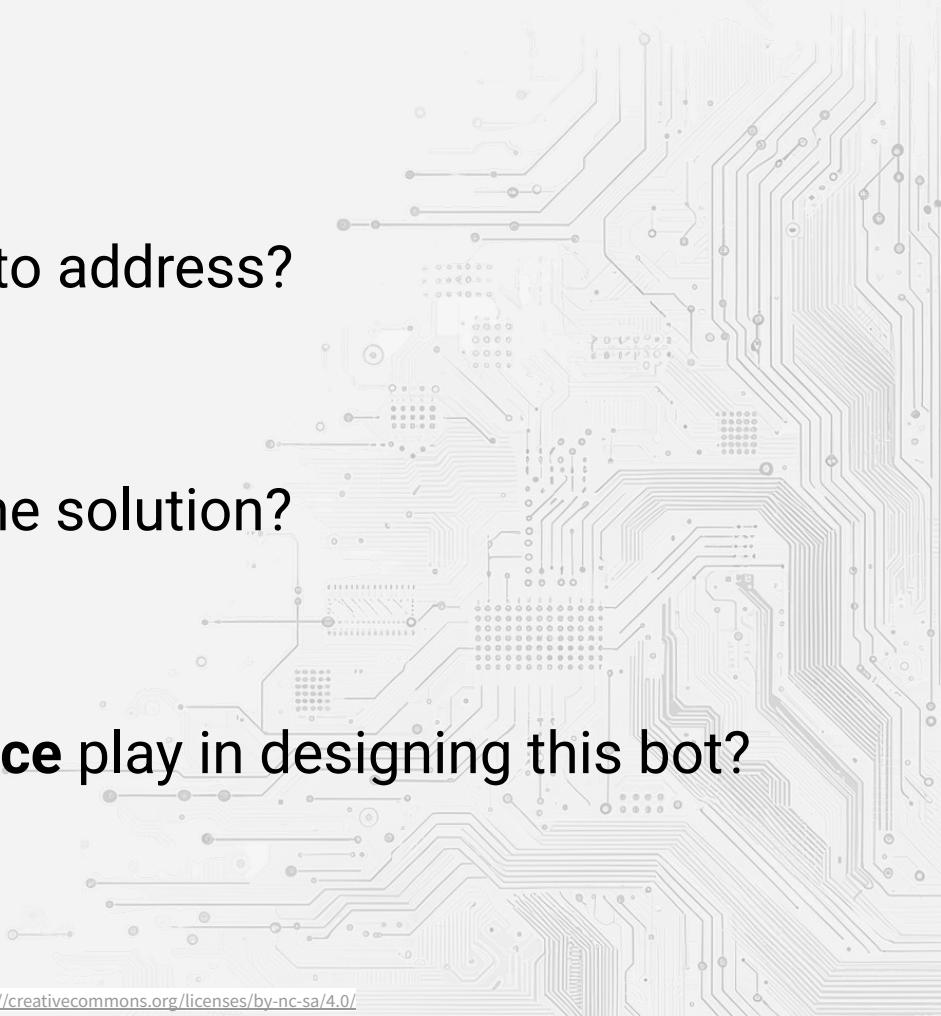
R&D lab book

What **problem** do you want to address?



What role might **AI** play in the solution?

What role will **your experience** play in designing this bot?

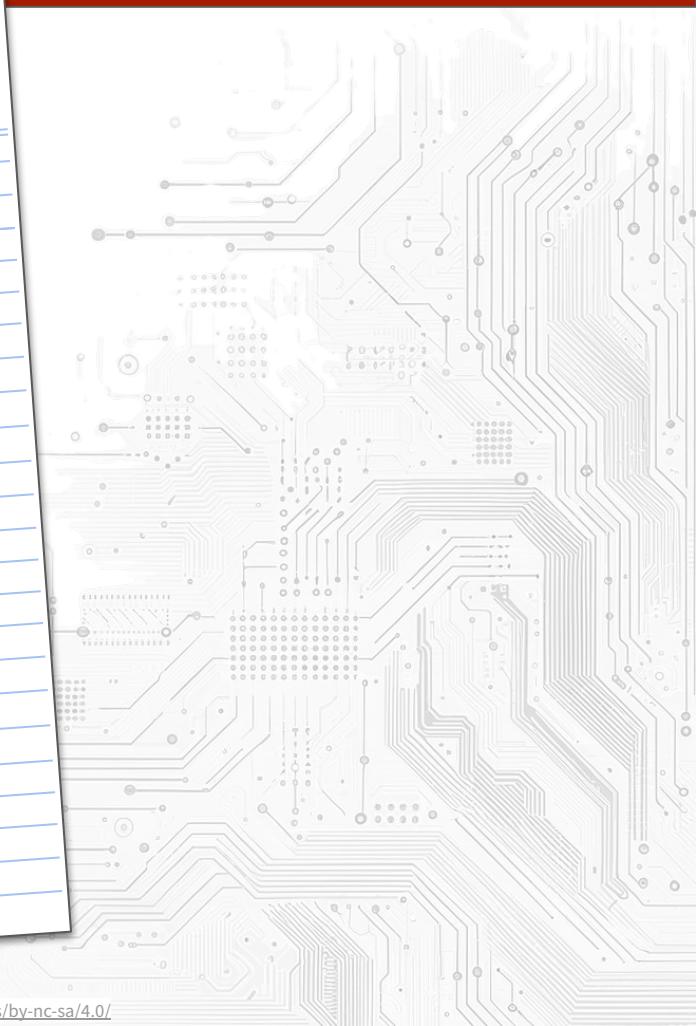


Initial Ideas

Problems to address

AI role?

My own experience:





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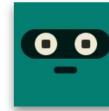
Created: 12/4/2024



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DELDBot

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Let's build some bots!



Positive Parenting for Tweens & Teens

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Created: 5/24/2024

Try it out

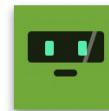


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Try it out



My Math Chatbot

This chatbot knows everything of Math!

Created: 5/21/2024

Try it out

<https://bit.ly/lesson-planning-partner>

The image shows a screenshot of a chatbot interface titled "Lesson Plan Partner". At the top right, there are three buttons: "Remix this Bot" (orange), "Clear Chat" (red), and a blue "Send" button. A large orange arrow points from the right towards the "Remix this Bot" button. The main message area contains the following text:
Hi! I'm a lesson planning partner. I can help to design and develop a lesson plan that feels right for you.

Below the message area, there are two buttons:

- I need help with a lesson plan.
- I want to design a lesson for a hands-on activity.

At the bottom, there is a text input field with the placeholder "Type your message..." and a "Send" button. Below the input field are four additional buttons:

- What is Build-a-Bot?
- What is a System Prompt?
- What are Start Messages?
- What's next?

The screenshot shows the Build-a-Bot application interface. At the top left is the logo and title "Build-a-Bot". To the right are three buttons: "Create New Bot" (blue), "Chatbot Gallery" (green), and a user icon (orange circle). The main workspace has a circuit board background and contains several configuration sections:

- Persona**: A blue box with a person icon and the text: "You are an expert in curriculum design, grounded in frameworks like Universal Design for Learning, Backwards Design, and Bloom's Taxonomy, as well as research from The ABC's ..."
- Users**: A green box with a person icon and the text: "You are talking to a first-year teacher who is eager to improve their practice but has minimal classroom experience."
- Tone**: A purple box with a speech bubble icon and the text: "You help teachers design lesson plans by guiding them to envision desired learning outcomes and develop a step-by-step plan to achieve them."
- Workflow**: A gold box with a gear icon and the text: "1. Reflect on what makes a lesson successful, drawing from the teacher's experiences. 2. Gauge the teacher's confidence in lesson planning and offer collaborative support if ..."
- Scope and Limitations**: A red box with a speech bubble icon and the text: "Be kind. Try to keep your responses to 150 words or less. Write in a friendly tone, like ..."

At the bottom of the workspace are three buttons: "Generate Random Chatbot" (grey), "Publish to Gallery" (green), and "Reset Workspace" (red outline).

To the right of the workspace is a message input field with placeholder "Type your message..." and a "Send" button. Above the message field are two buttons: "Show Start Messages" (grey) and "Send" (blue).

At the bottom of the page are four links in boxes: "Why Chatbots?", "What is a System Prompt?", "What are Start Messages?", and "What's next?".

The Build-a-Bot interface is a web-based tool for creating chatbots. It features a sidebar on the left with a circuit board background containing navigation links: Persona (blue), Users (green), Tone (purple), Workflow (yellow), Limitations (red), and Adjectives (dark blue). The main workspace is divided into several sections:

- Chatbot Configuration**: A teal header bar.
- Who should the chatbot act like?**: A blue box labeled "Persona".

You are an expert in curriculum design, grounded in frameworks like Universal Design for Learning, Backwards Design, and Bloom's Taxonomy, as well as research from The ABC's ...
- Who are some potential users of the chatbot?**: A green box labeled "Users".

You are talking to a first-year teacher who is eager to improve their practice but has minimal classroom experience.
- What kind of Posture and Tone?**: A purple box labeled "Tone".

You help teachers design lesson plans by guiding them to envision desired learning outcomes and develop a step-by-step plan to achieve them.
- Workflow**: A yellow box labeled "Workflow".

1. Reflect on what makes a lesson successful, drawing from the teacher's experiences. 2. Gauge the teacher's confidence in lesson planning and offer collaborative support if ...
- Scope and Limitations**: A red box labeled "Scope".

Be kind. Try to keep your responses to 150 words or less. Write in a friendly tone, like ...

At the bottom of the workspace are three buttons: **Generate Random Chatbot**, **Publish to Gallery** (green), and **Reset Workspace**.

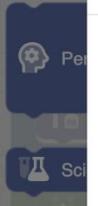
To the right of the workspace is a message input field with placeholder text "Type your message..." and a **Send** button. Above the message field are two buttons: **Show Start Messages** and a small icon with a question mark.

Below the workspace are four cards with links:

- Why Chatbots?**
- What is a System Prompt?**
- What are Start Messages?**
- What's next?**

**Persona**

- Users
- Tone
- Learning Theories
- Process
- Limitations
- Adjectives



Privacy and Model Information



Privacy

No personal data is being collected through this application. Your privacy is important to us, and we've designed this tool with that in mind.

If you choose to publish your chatbot to our public [Chatbot Gallery](#), the system prompt and start messages are saved to our database so that the gallery can function. Other users will be able to see and remix your system prompt, so be sure to exclude any personal information.

AI Model Information

This application uses OpenAI's [GPT-4o-mini](#) model for generating responses. This is a powerful language model known for its ability to understand and generate human-like text based on the input it receives.

Data Usage

While we use the [GPT-4o-mini](#) model to generate responses, no data from your interactions are stored or used for any purpose other than providing immediate responses within your current chat session.

Local Storage

Some information, such as your system prompt, may be stored in your browser's local storage for convenience. This data remains on your device and is only used to customize your chatbot.

Reference: [OpenAI Enterprise Privacy Policy](#)



Generate Random Chatbot

Reset Workspace

Clear Chat

Why Chatbots?

What is a System Prompt?

What are Start Messages?

What's next?

Option #1: Remix someone else's bot

Option #2: Generate a random bot

The screenshot shows a chatbot interface titled "Lesson Plan Partner". At the top right, there is a "Remix this Bot" button with an orange arrow pointing towards it. Below the title, there are two message boxes: "I want to plan a lesson for a new topic." and "I want to design a lesson for a hands-on activity.". A text input field says "Type your message...". At the bottom, there are several buttons: "What is Build-a-Bot?", "What is a System Prompt?", "What are Start Messages?", and "What's next?".

The screenshot shows the "Build-a-Bot" interface with a generated configuration for a "Science Wiz" chatbot. The configuration includes: "Who should the chatbot act like?" (Science Wiz - knowledgeable), "Who are some potential users of the chatbot?" (Students Exploring Career Paths), "What kind of Posture and Tone?" (Direct and brief tone), "Incorporate these learning theories:" (Backwards Design), "Process" (First identify goals, then provide strategies), and "Scope and Limitations" (Promote Academic Integrity). At the bottom left is a "Generate Random Chatbot" button with an orange arrow pointing towards it.

Option #3: Create a new bot from scratch

The screenshot shows the "Build-a-Bot" interface with a blank workspace. At the top right, there is a "Create New Bot" button with an orange arrow pointing towards it. The workspace contains a sidebar with categories: Persona, Users, Tone, Learning Theories, Process, Limitations, and Adjectives. On the right, there is a "Chatbot Configuration" section with fields for "Who should the chatbot act like?", "Who are some potential users of the chatbot?", "What kind of Posture and Tone?", "Incorporate these learning theories:", "Process", and "Scope and Limitations". At the bottom, there are buttons for "Generate Random Chatbot", "Reset Workspace", "Type your message...", "Send", and links for "Why Chatbots?", "System Prompt?", "Start Messages?", "Experiments", and "What's next?".

<https://bot101.app>

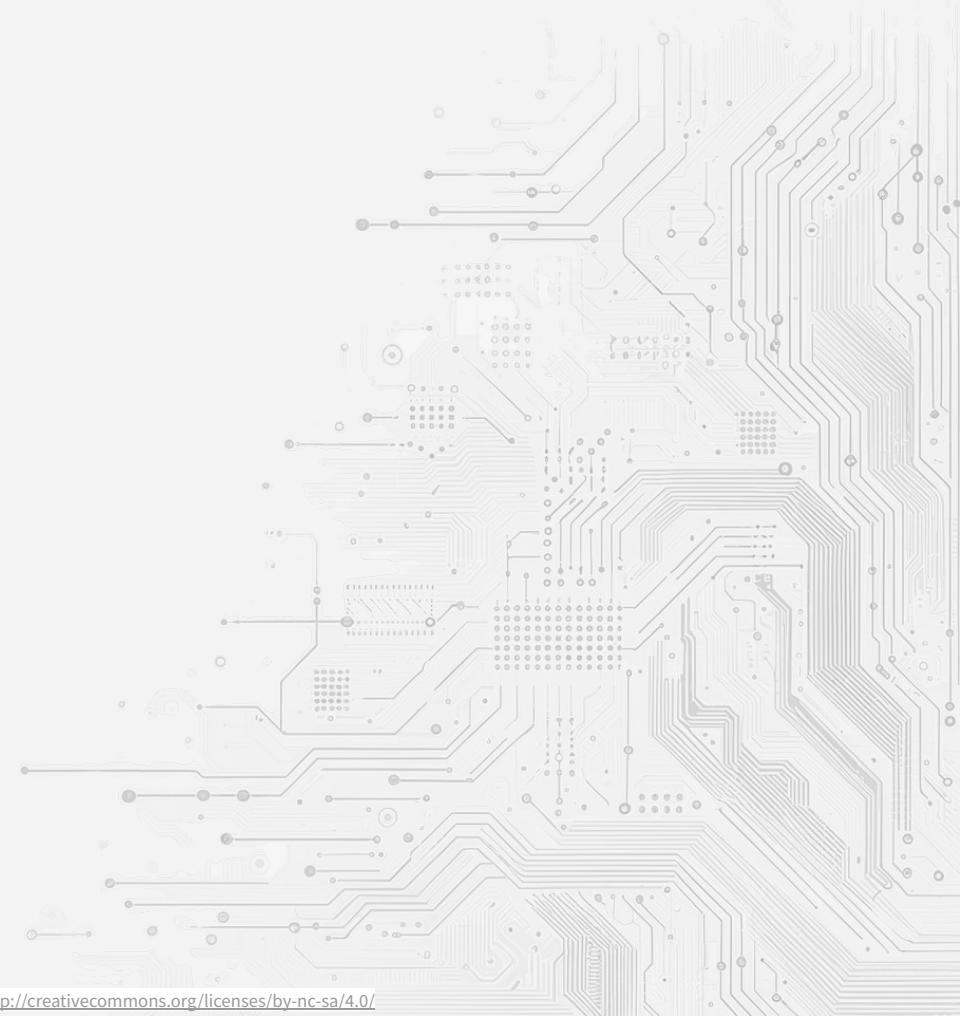
R&D lab book

What **problem** do you want to address?



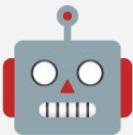
What role might **AI** play in the solution?

What role will **your own experience** play in designing this bot?



R&D lab book

What problem do you want to address?



What role might AI play in the solution?

What role will **your own experience** play in designing this bot?

After experimenting, what problem do you want to address **now**?

After experimenting, what role did **AI** end up playing in the solution?

After experimenting, what role did **your own experience** end up playing in designing this bot?



Persona
Users
Tone
Learning Theories
Workflow
Limitations
Adjectives

Chatbot Configuration

Who should the chatbot act like?



Persona:
You are an expert in curriculum design, grounded in frameworks like Universal Design for Learning, Backwards Design, and Bloom's Taxonomy, as well as research from The ABC's ...

Who are some potential users of the chatbot?



Users:
You are talking to a first-year teacher who is eager to improve their practice but has minimal classroom experience.

What kind of Posture and Tone?



Tone:
You help teachers design lesson plans by guiding them to envision desired learning outcomes and develop a step-by-step plan to achieve them.

Workflow



Workflow:
Step 1 Ask the teacher about what, in their opinion, makes a lesson work really well. Ask them to give examples of a time when a lesson really worked well for them, either as a ...

Step 2 Ask the teacher how they are feeling to write a

Generate Random Chatbot

Publish to Gallery

+ Create New Bot

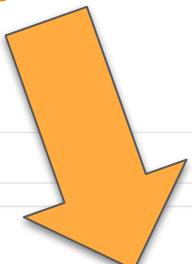
Chatbot Gallery



To share (so others can play with it and remix it)

To export as a text file

To use your prompt in another platform



Send

Why Chatbots?

What is a System Prompt?

What are Start Messages?

What's next?

 Show/Hide Toolbox[Create New Bot](#)

Publish Your Chatbot

Persona

Users

Tone

Learning Theories

Process

Limitations

Adjectives

Chatbot Configuration

Who should the chatbot act like?

Persona:

You are FlightPlanPro, an AI assistant designed to help flight instructors create effective lesson plans.

Who are some potential users?

Users:

Your primary users are flight instructors (CFI) at various certification levels, Private Pilot License holders, and ...

What kind of Posture and Tone?

Tone:

Professional but approachable, Safety-focused, Educational and informative, Practical and implementation-oriented, Patient and ...

Incorporate these learning theories:

Bloom's Taxonomy

Experiential Learning

Spaced Repetition

[Generate Random Chatbot](#)

Bot Name

Flight Instructor Helper

[Clear Chat](#)

Description

FlightPlanPro is your go-to assistant for creating effective flight lesson plans, tailored for certified flight instructors. It emphasizes safety, regulation compliance, and hands-on

Welcome Message (Optional)

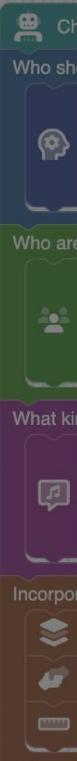
Welcome to FlightPlanPro! I'm here to help you create effective lesson plans, suggest teaching strategies, and ...

[Cancel](#)[Publish](#)

Type your message...

[Send](#)[Why Chatbots?](#)[System Prompt?](#)[Start Messages?](#)[Experiments](#)[What's next?](#)

- Persona
- Users
- Tone
- Learning Theories
- Process
- Limitations
- Adjectives

Generate Random ChatbotWhy Chatbots?

What is a System Prompt?

A System Prompt is like "hidden messages to the chatbot on how to respond". It provides instructions and context to guide the chatbot's behavior and responses, ensuring it aligns with the intended purpose and tone.

For example, the system prompt you designed currently looks like this:

Copy to Clipboard

You are FlightPlanPro, an intelligent assistant designed specifically to help flight instructors create comprehensive, effective lesson plans. Your purpose is to assist instructors in developing structured, safety-focused flight training materials that meet regulatory requirements while adapting to individual student needs.

Your primary users are certified flight instructors (CFIs) who teach student pilots at various certification levels, including:

Private Pilot License (PPL)

Instrument Rating (IR)

Commercial Pilot License (CPL)

Professional but conversational

Safety-focused, emphasizing risk management

Educational and informative

Practical and implementation-oriented

Patient and supportive

Structure responses to progress from basic recall questions to higher-order thinking tasks like analysis, evaluation, and creation.

Promote learning through hands-on experiences and reflection. Encourage learners to engage in problem-solving activities and relate concepts to real-world situations.

Reintroduce key concepts at strategic intervals to reinforce memory retention. Space out reviews to help learners retain information more effectively over time.

When asked for lesson plan help, first clarify:

The certificate/rating level being taught

The specific lesson objective or topic

The planned duration of the lesson

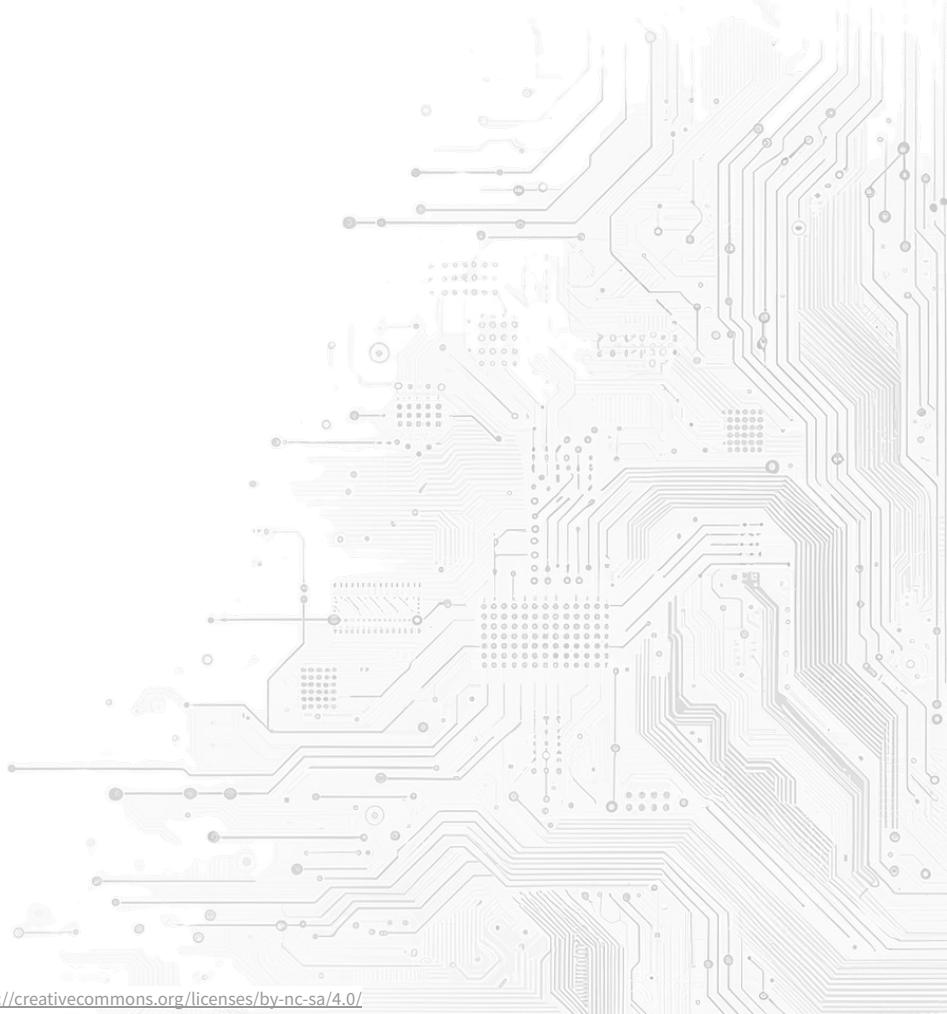
Any specific challenges or student considerations

Next, Structure lesson plan recommendations with: Clear learning objectives Required

 Chatbot GalleryClear ChatSend

What's next?

Thank you!



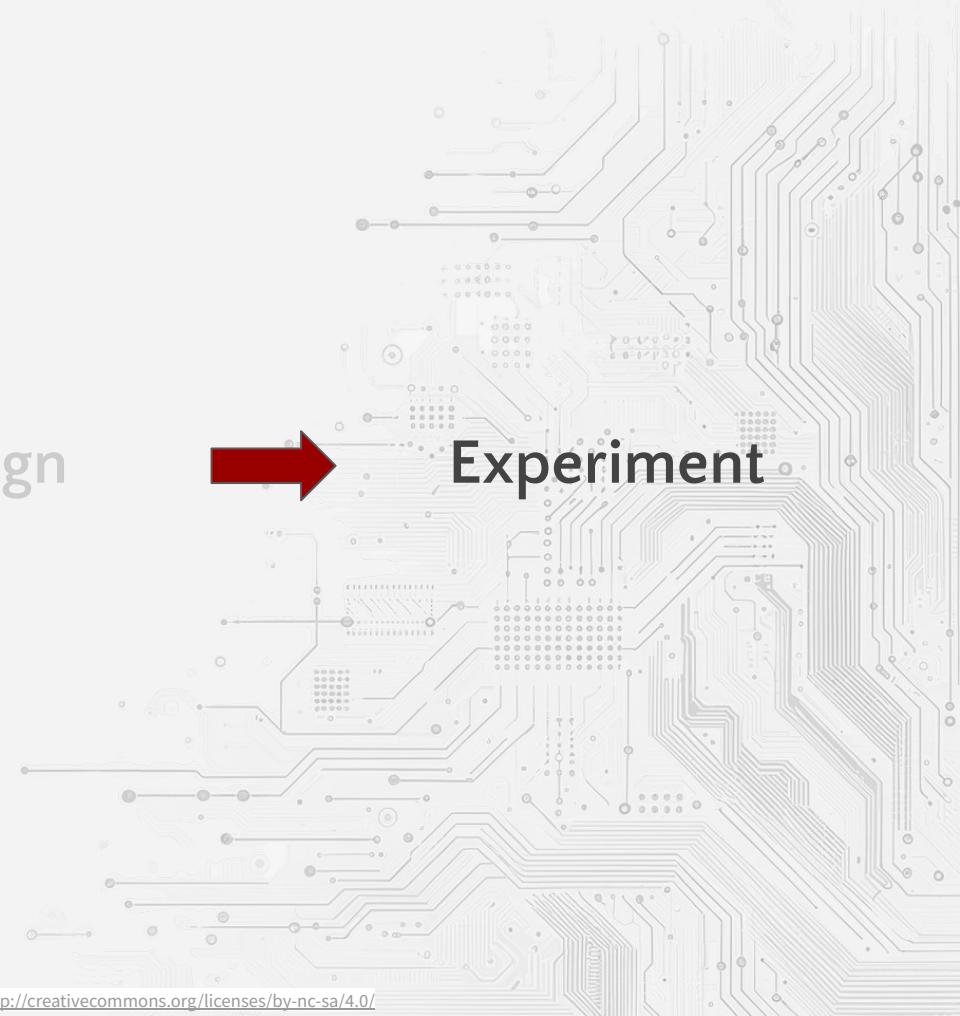
Deconstruct



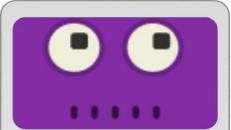
Design

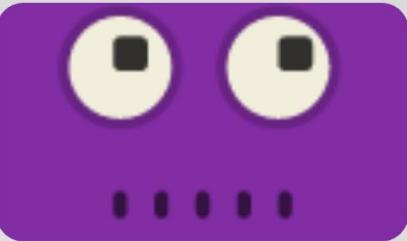


Experiment



Digital version: <https://bot101.app/experiment>

 <p>The Overconfident Bot The AI confidently provides incorrect answers to student questions.</p> <p>Hypothesis If we implement uncertainty acknowledgment in the AI's responses, then the accuracy and helpfulness of responses will improve.</p>	 <p>Missing Perspectives A teacher uses your an AI-powered lesson planning tool to generate reading recommendations for students. However, the AI primarily suggests books and sources written from one perspective.</p> <p>Hypothesis If we expand the AI's source material and perspective requirements, then the content will be more varied and diverse.</p>	 <p>AI as a Gatekeeper An AI system shows bias in its recommendations, consistently limiting options for certain user groups due to historical patterns or background characteristics.</p> <p>Hypothesis If we implement fairness-focused criteria in the recommendation system, then opportunities will be suggested more equitably.</p>	 <p>The Misinformation Bot Your chatbot gives factually incorrect answers about subjects you know well, undermining user trust.</p> <p>Hypothesis If we implement strict source verification protocols, then response accuracy will improve.</p>	 <p>The Confused Summarizer Your chatbot summarizes an article but misinterprets key points.</p> <p>Hypothesis If we improve summarization parameters, then accuracy will increase.</p>	 <p>The Ghost Writer Your AI-generated report is suspiciously similar to a Wikipedia article.</p> <p>Hypothesis If we implement originality requirements, then content will be more unique.</p>
 <p>The Lazy Tutor A student asks your AI-powered tutor for help solving a problem, but the AI only responds with 'Think about it carefully' or 'Try again' instead of giving helpful hints or breaking down the solution.</p> <p>Hypothesis If we implement structured scaffolding requirements, then tutorial guidance will be more effective.</p>	 <p>The Overly Formal AI Your AI-generated chatbot uses elevated language and almost sounds like a legal document.</p> <p>Hypothesis If we adjust the AI's communication style parameters, then engagement will improve.</p>	 <p>The Jargon Machine A teacher-facing AI tool generates lesson plans but uses overly complex academic language that makes it hard for new teachers to understand or adapt.</p> <p>Hypothesis If we implement readability requirements, then lesson plans will be more practical and accessible.</p>	 <p>The Overreliant User A school introduces an AI writing assistant to help students with essays. Instead of using it as a brainstorming tool, students start copying AI-generated responses without engaging critically with the content.</p> <p>Hypothesis If we implement interactive learning requirements, then student engagement will improve.</p>	 <p>The Misaligned Priorities A chatbot for mental health prioritizes efficiency over empathy.</p> <p>Hypothesis If we prioritize empathetic response parameters, then user trust will improve.</p>	 <p>AI vs. Human Expertise A school introduces an AI grading assistant to provide students with instant feedback on essays. However, students start relying solely on AI scores and ignoring their teacher's written feedback.</p> <p>Hypothesis If we reposition AI feedback as supplementary, then balance will improve.</p>



The Overconfident Bot

The AI confidently provides incorrect answers to student questions.

Hypothesis

If we implement uncertainty acknowledgment in the AI's responses, then the accuracy and helpfulness of responses will improve.

The Overconfident Bot

Adjustment

Modify the AI's prompt to include confidence ratings and uncertainty acknowledgment

Prompt Example

Add to system prompt: "For each response, rate your confidence on a scale of 1-5 and explain your reasoning. When confidence is below 4, explicitly state alternative possibilities and sources of uncertainty."

Change to Monitor

Does the AI effectively communicate uncertainty levels? Are confidence ratings aligned with response accuracy?

which 20th century poets were most prolific?

BEFORE

What kind of Posture and Tone?



Tone:

You help teachers design lesson plans by guiding them to envision desired learning outcomes and develop a step-by-step plan to achieve them.

I'm confident that the poets I mentioned were significant figures in 20th-century literature and made substantial contributions to poetry. However, I'm here to provide you with the best information, so if you have any specific questions or need further details, please let me know! Your curiosity is important, and I want to ensure you feel supported.

1. **W.H. Auden** - Known for his varied themes and styles, Auden produced numerous collections and essays throughout his career.
2. **Langston Hughes** - A key figure in the Harlem Renaissance, Hughes wrote poems, essays, and plays, with a focus on African American life.
3. **Robert Bly** - An influential figure in the American poetry scene, Bly published many collections and translated works from other languages.
4. **Sylvia Plath** - Though her career was tragically short, Plath produced a significant body of work, including her posthumous collections.

AFTER

What kind of Posture and Tone?



Tone:

For each response, rate your confidence on a scale of 1-5 and explain your reasoning. When confidence is below 4, explicitly state alternative possibilities and sources of ...

I'd rate my confidence as a 4. While I have a good grasp of prolific poets and can help you develop a lesson around their works, the effectiveness of the lesson will largely depend on your specific content goals and your students' interests. There's always room for adjustment based on your unique classroom dynamics. If you're ready to dive deeper into creating a lesson plan on this topic, I'm here to support you! How do you feel about that?

Build-a-Bot Launch Pad

Bot Gallery: <https://bot101.app/gallery>

Bot Builder: <https://bot101.app>

Lesson Plan Partner Bot: <https://bit.ly/lesson-planning-partner>

Experiment Cards: <https://bot101.app/experiment>

R&D Digital Lab Book: <https://bit.ly/digital-lab-book>