



SAN DIEGO
Community College District

ENHANCING LEARNING WITH AI CHATBOTS: STRATEGIES FOR INTEGRATION & ENGAGEMENT

RODRIGO GOMEZ, II&E

5/23/25



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**FACULTY SPECIALIST FOR EMERGING TECHNOLOGY,
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I have a passion for rhetoric, pedagogy, and poetry. I also maintain a keen interest in gamification, edtech, and web3 technologies, like artificial intelligence (AI), blockchain, and the metaverse--particularly in how they can make education more accessible, engaging, relevant, and impactful for students.



1

Introduce Agentic AI & Chatbots as Learning Partners

Define agentic systems and tools for building agents that assist provide interactive support.

2

Embed Chatbots in Course Workflows

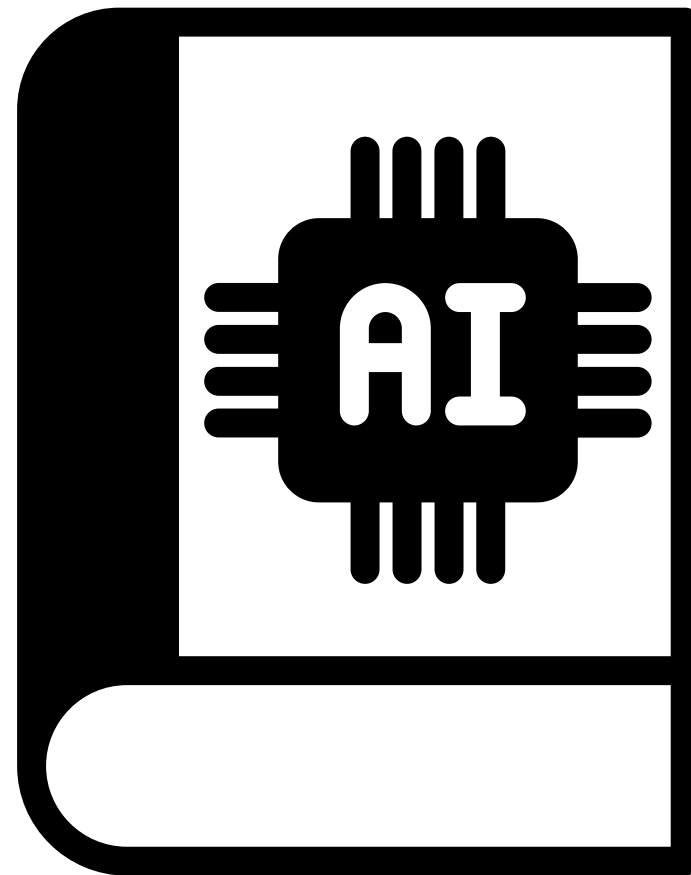
Integrate chatbots into course flows to streamline communication and answer FAQs in real time.

3

Foster Meaningful Engagement & Track Impact

Design activities that prompt thoughtful chatbot use & track analytics and gauge contributions to learning outcomes.

A.I Literacy: Understanding the Basics



AI Literacy is the ability to understand, use, and critically evaluate AI tools—recognizing their limitations, ethical implications, and societal impact.

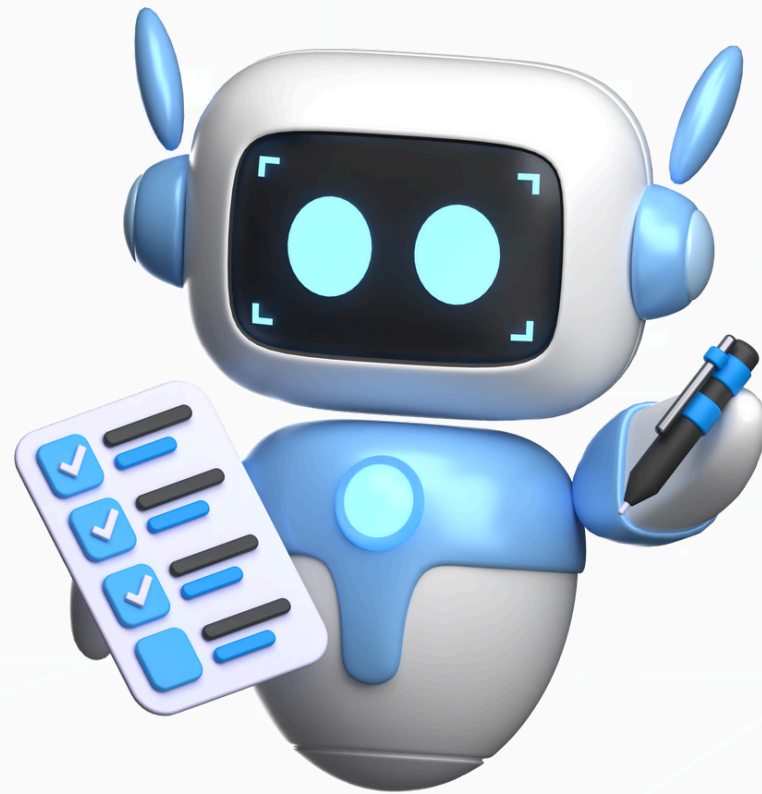
- Including **Agentic AI** **NEW UPDATE**

AI Prompting is the practice of guiding AI tools using natural language to generate relevant, tailored responses—by giving clear instructions, questions, or examples aligned with the user's intent.

Ethical AI Usage emphasizes ensuring responsible and equitable use of AI in the classroom, focusing on privacy, bias, and academic integrity.

A.I Agents: Chatbots & More

AI Agents are autonomous digital assistants that can be programmed to achieve specific goals



Goal-driven digital assistant

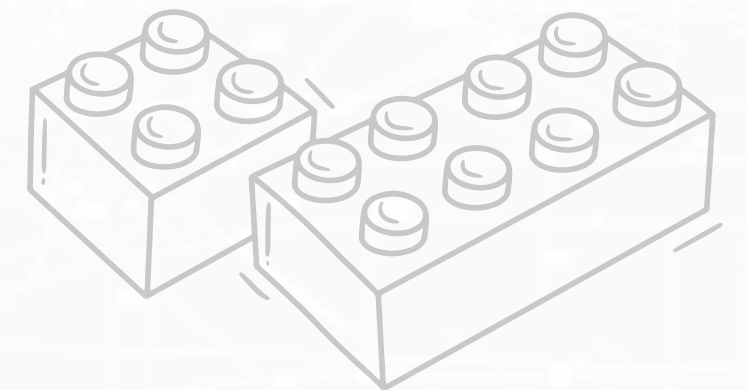
- Performs tasks, communicates, adapts

Custom-built teammate

- Designed with specific roles, skills, traits, and workflows

Agents are Modular:

- Platforms provide pieces to assemble



A.I Agents: Modular Design

An AI Agent needs...
to be a full character!

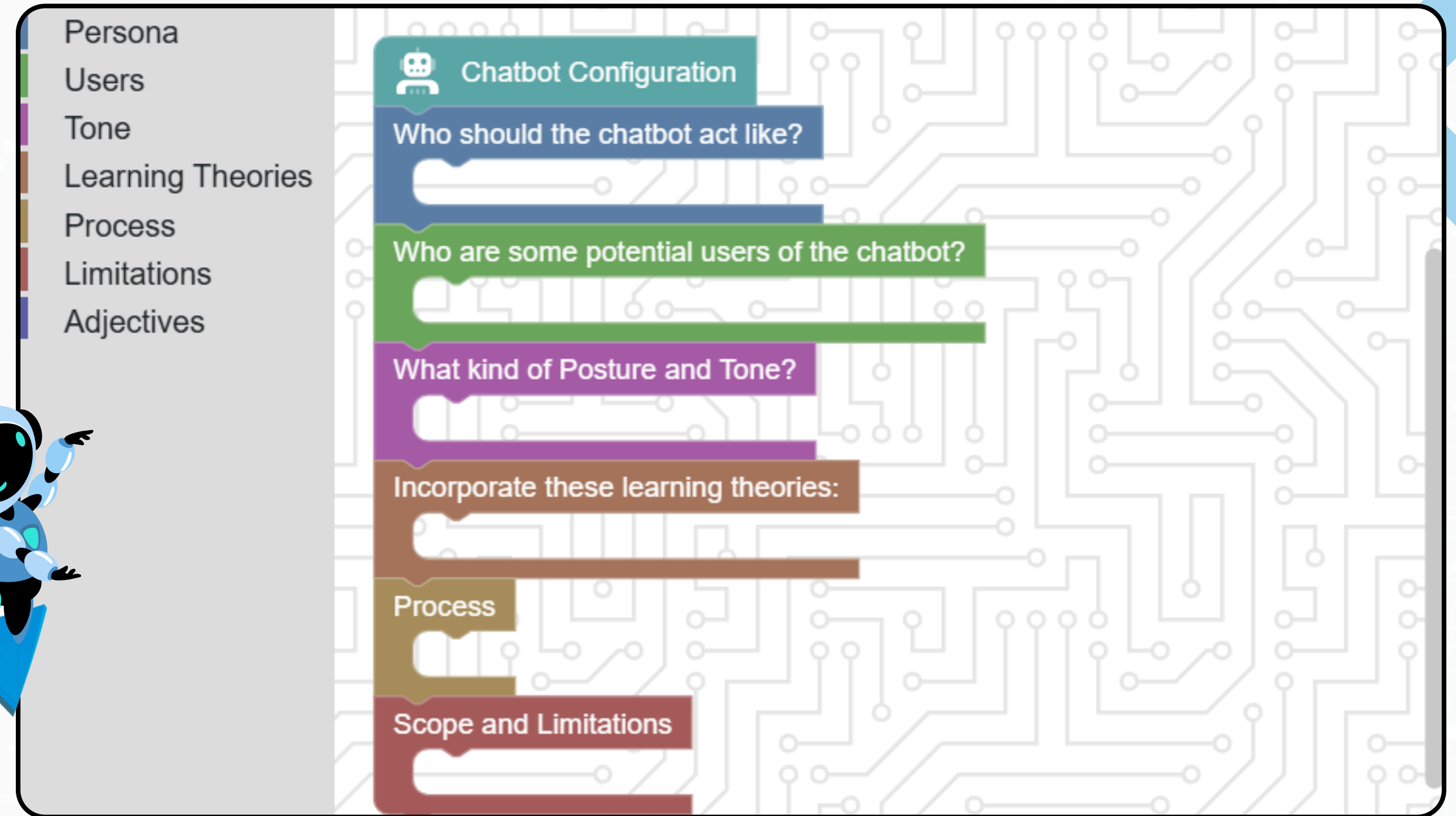


	Description	Example
Role	Personality + Purpose	Motivational coach
Tasks	What the bot can do	Summarize text, send tips
Workflow	When and how it activates	Every morning, on demand
Knowledge	What it knows or learns from	Docs, links, uploaded files

A.I Agents: Modular Design

bot101.app offers a great visual for Agentic design.

Agents/bots essentially constrain the LLM output with **specific parameters**



A.I Agents: Modular Design

General Purpose Platforms

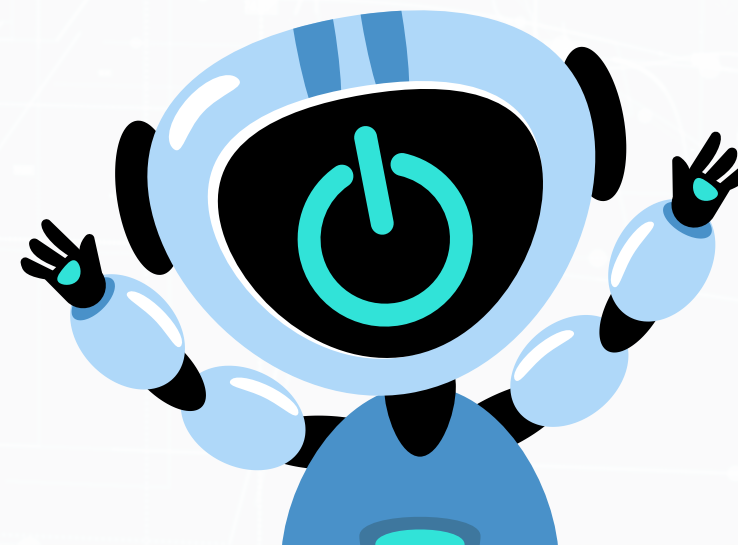
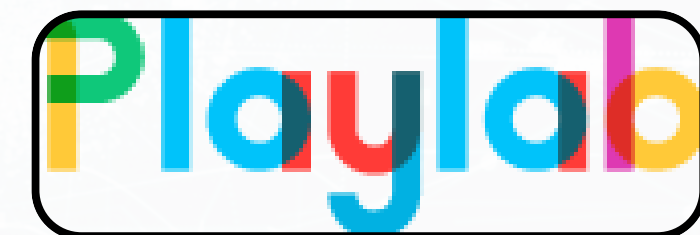
- ChatGPT - Quick custom GPTs
- Microsoft Copilot Studio - Enterprise integration
- elizaOS - OS for AI agents

Specialized Frameworks

- CrewAI - Multi-agent collaboration
- MindStudio - Advanced reasoning capabilities
- Build-a-Bot - Simplified interface

Education-Focused Tools

- PlaylabAI - Visual education agents
- NectirAI - LMS integration specialists
- Both offer educator-specific features



A.I in Education: Benefits & Risks



Instruction Support

Supports differentiated instruction and content generation.



Feedback Mechanism

Enables timely, personalized feedback and tutoring.



Creativity Enhancement

Sparks creativity, collaboration, and skill development.



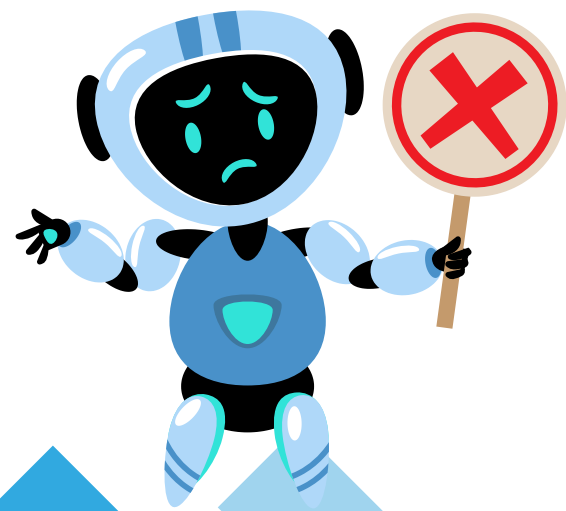
Workflow Efficiency

Increases efficiency in administrative and teaching workflows.



Accessibility Aid

Helps bridge accessibility and equity gaps.



Plagiarism Risks

Raises concerns around plagiarism and academic honesty.



Data Privacy

Threatens student data privacy and informed consent.



Student Agency

May diminish student agency and authentic learning.



Social Biases

Can reinforce existing social biases and inequality.

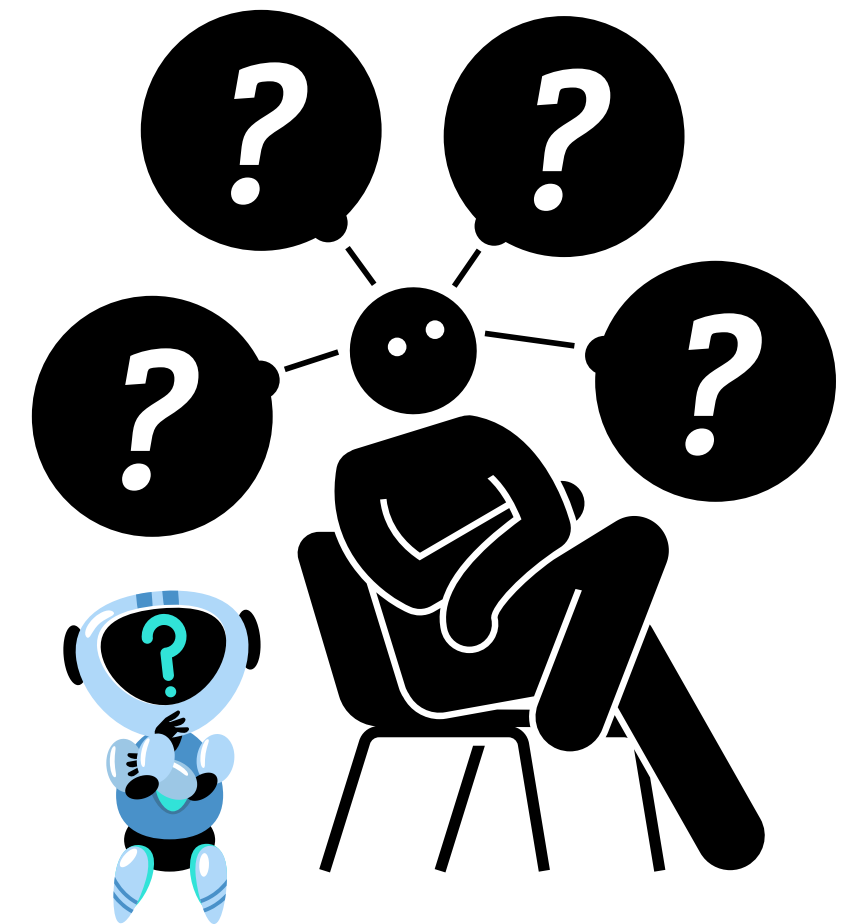


Critical Thinking

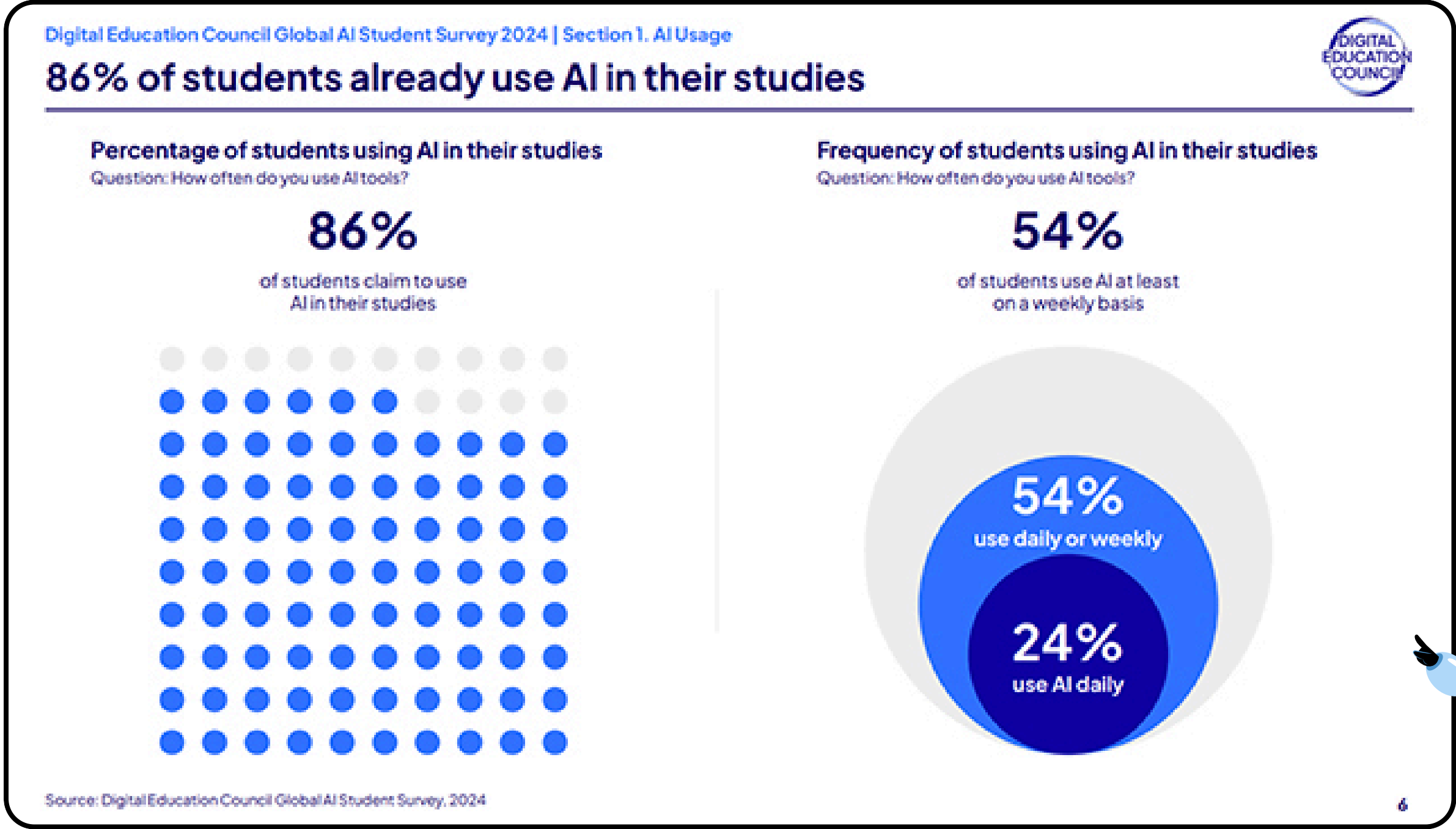
Leads to overreliance and loss of critical thinking.

AI Chatbots & Agents: Framing Questions

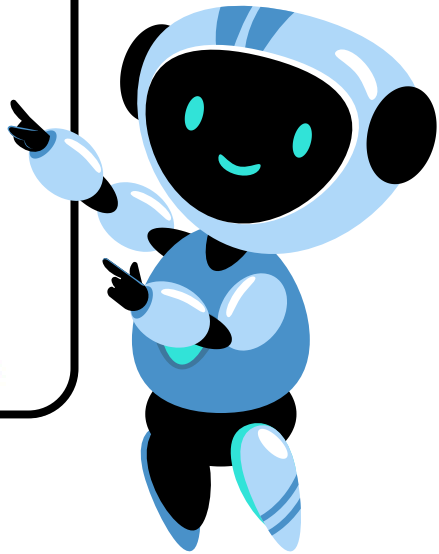
1. Where in my course could an AI agent genuinely save time or cognitive load—for me or my students—without compromising depth or integrity?
2. How do I help students use chatbots critically, spotting bias or hallucinations, while still encouraging curiosity and experimentation?
3. What kinds of learning evidence (e.g., prompt iterations, chat logs, reflections) can make AI use transparent and assessable?
4. How do I build classroom norms for ethical and responsible use of agents—especially when tools suggest shortcuts or missteps?
5. Could agentic A.I help create a more coherent, creative learning ecosystem—rather than just more tech noise?



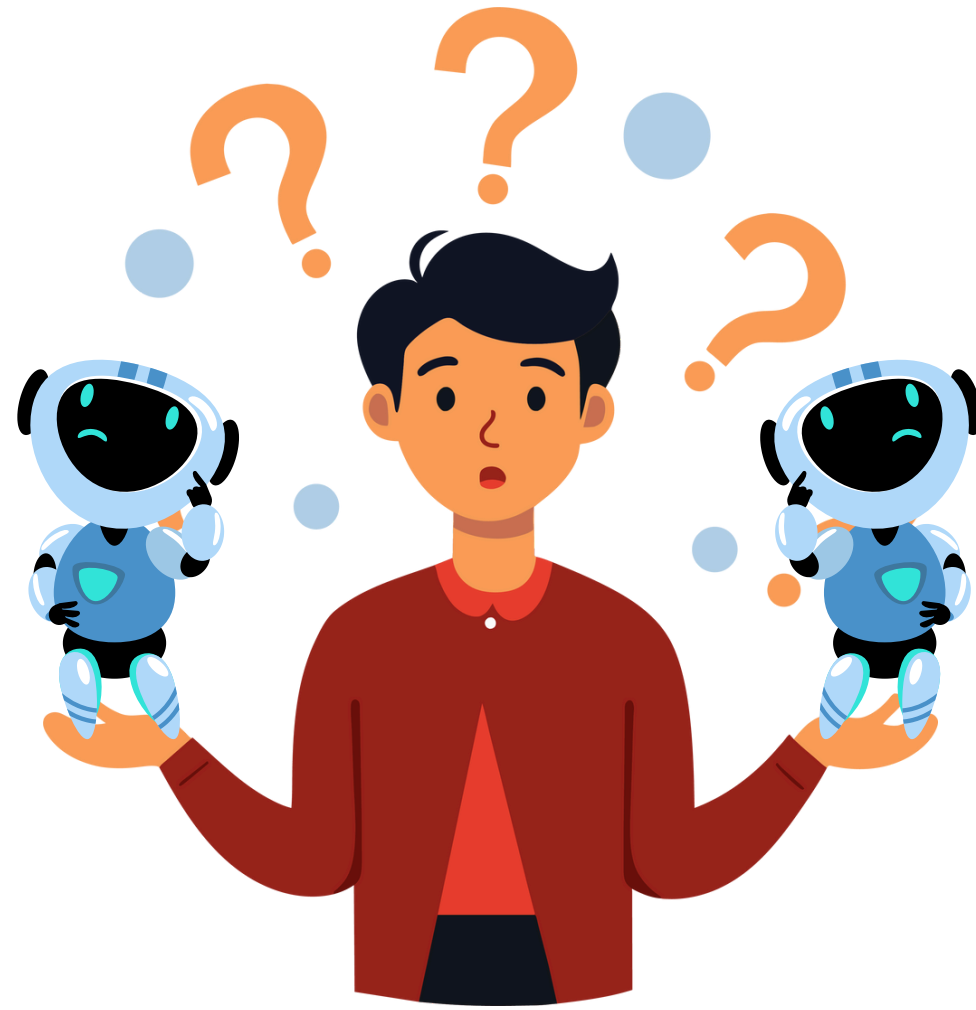
A.I in Education: The Current Landscape



3,839 responses
from bachelor,
masters, and
doctorate students
across 16 countries



A.I in Education: Starting the Conversation



**“So, am I allowed to use
A.I in this class?”**

Why This Question Matters

- Some students are already using AI—*often without clear guidance.*
- Faculty approaches *vary widely*, creating confusion and inconsistency.
- Clear, collaborative policies *promote ethical, informed use.*

A New Opportunity

- Use the question to introduce AI literacy.
- Collaborate with students to build classroom norms.
- Treat uncertainty as a chance to shape shared values.

A.I Agents: The Building Process

Identify your educational need

- What specific challenge would you like assistance with?

Sketch your agent blueprint

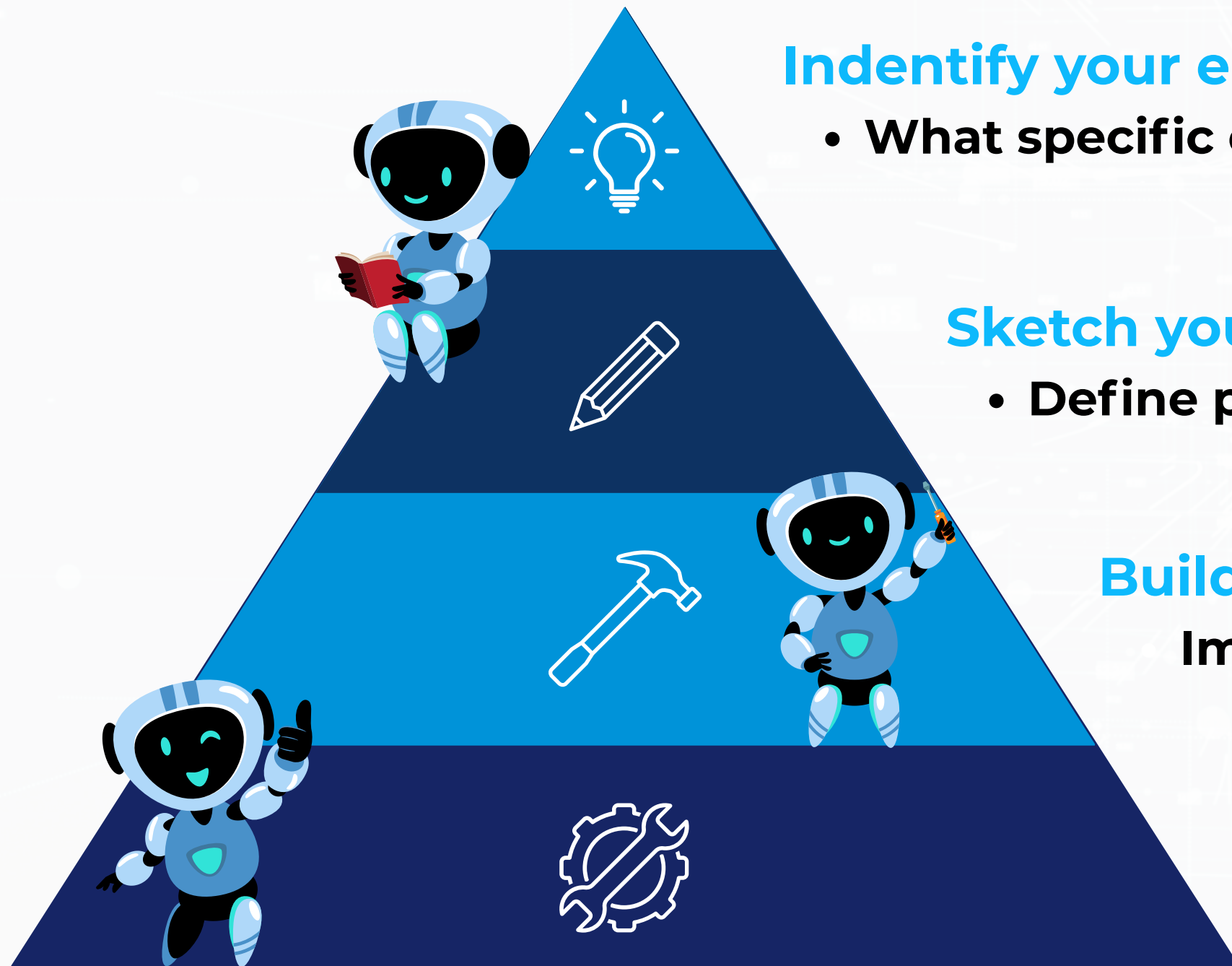
- Define personality, tasks, and knowledge sources

Build using your chosen platform

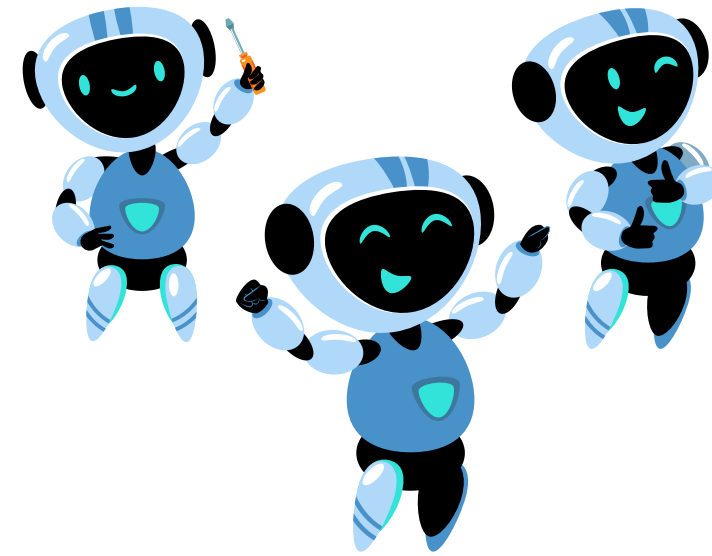
Implement your design in [Playlab](#) or [Nectir](#)

Test and refine your creation

- Improve through iterative testing & feedback



A.I in Education: Imagining Agents



Lab Partner

Biology & STEM Labs – Simulates procedures, predicts outcomes, and suggests troubleshooting steps; frees class time for analysis and helps students connect theory to practice without waiting for instructor assistance.

Writing Coach

English / Composition – Offers live feedback on structure, voice, and citation; tracks draft iterations so students see their growth and develop metacognitive awareness of their writing process.

Research Assistant

History & Social Sciences – Scouts primary / secondary sources on demand, highlights credibility red flags, and generates brief annotated bibliographies so students spend more time synthesizing ideas rather than hunting for materials.

Project Manager

Interdisciplinary Capstones – Breaks big projects into milestones, reminds teams of deadlines, and surfaces relevant rubrics or resources; teaches time-management and collaborative planning skills.

Career Navigator

Business & Professional Programs – Maps course competencies to job skills, recommends internships or micro-credentials, and coaches students on portfolio evidence; empowers learners to translate classroom achievements into career trajectories.

A.I in Education: Examples

In-Course Support

Gomez Syllabot

A syllabus bot for English 101 & 205 with Professor Gomez. Students can engage with the content of the syllabus and get to know more about the course at their liesure.

Start

The creators of this app can review your usage, never share personal information.
AI is not intended to give professional, legal, medical or financial advice.

Try Syllabot!



Campus Support

[REMIX] The Pathfinder Career Planner

The "Pathfinder Career Planner" app is your ultimate guide to discovering what it truly takes to become the professional you aspire to be.

Start

The creators of this app can review your usage, never share personal information.
AI is not intended to give professional, legal, medical or financial advice.
By using this app, you agree to Playlab's [Terms & Privacy](#).

Try Becky!



A.I in Education: A.I Bots for Education

Essay Assistant

Description

Essay Architect helps students understand and respond to their writing assignments. It walks them through outlining their essays using either point-by-point or block structure, while also helping them choose relevant literary frameworks. It never drafts content but guides students in planning strong, well-organized essays.

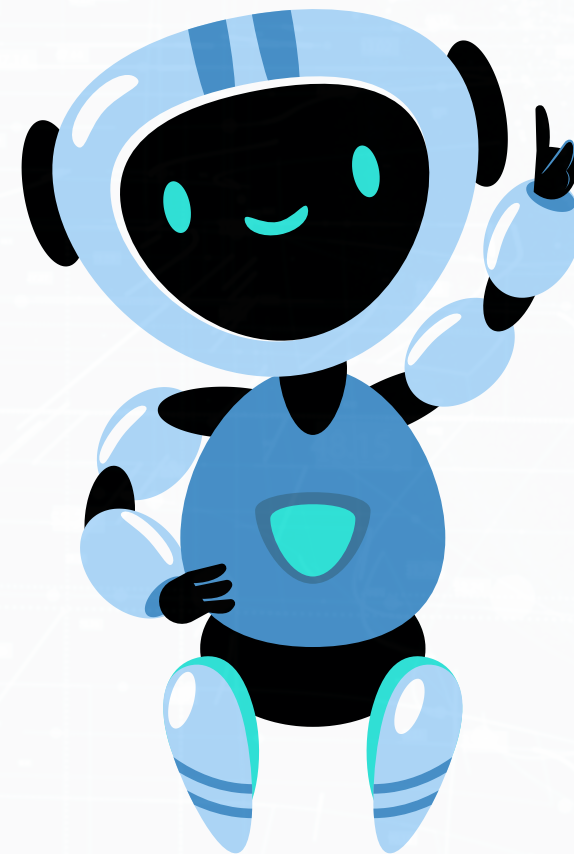


Tools like Playlab and Nectir are already helping educators build conversational bots that offer scaffolding, feedback, and reminders—available to students anytime they need support.

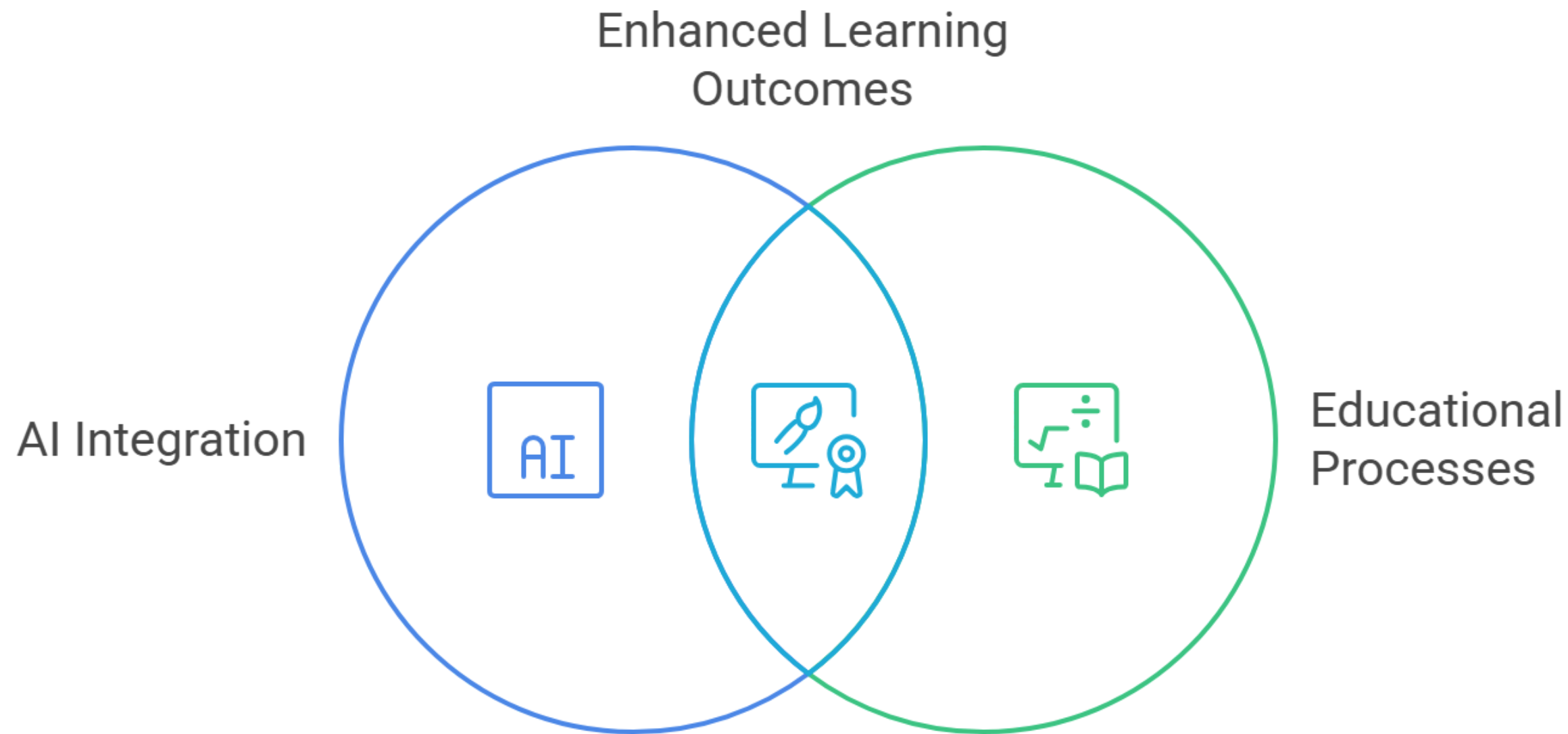
These bots don't replace instruction—they **reinforce** it, giving students another way to stay engaged, organized, and confident.

LIVE DEMO: Introducing

Miramar Flex Bot (SDCCD).



Remember: Regardless of Discipline

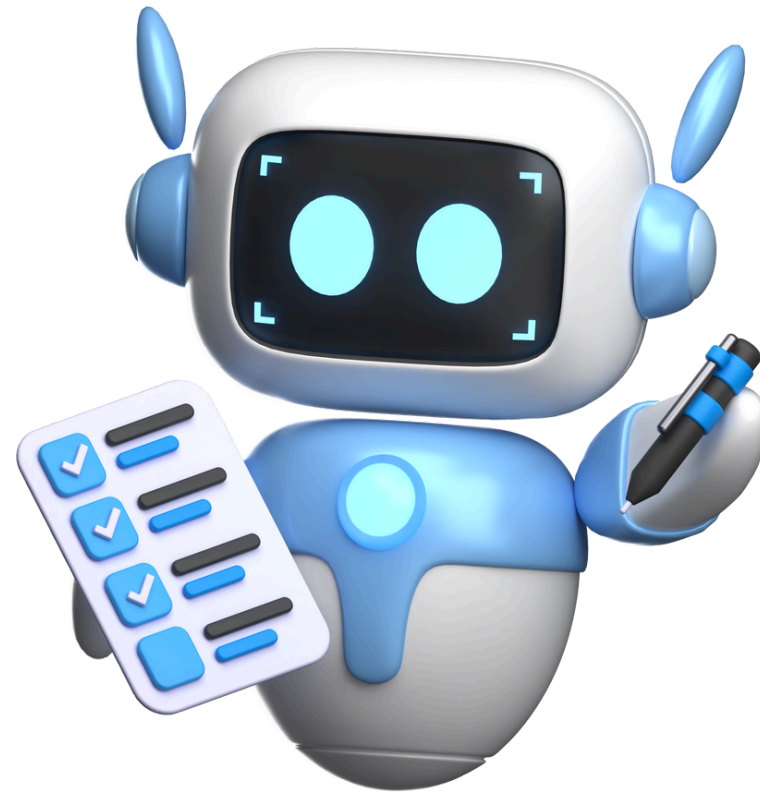


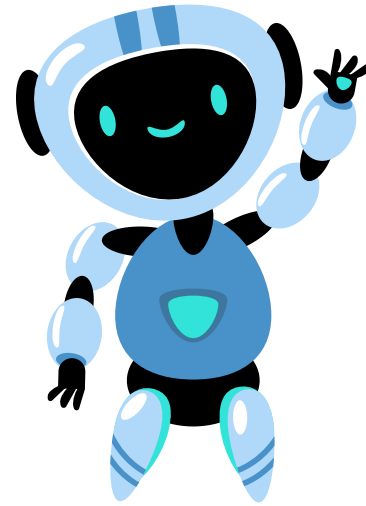
AI isn't replacing education—it's reshaping how we design, assess, and engage.

Across disciplines, AI can scaffold student thinking, enhance equity, and foster authentic learning.

Join II&E for Upcoming AI Activities Spring 2025

**Currently Planning Fall 2025 &
Spring 2026 Offerings! Stay Tuned!**





**Thanks for coming. Hope
you found our time
productive!**

Stay in touch!
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SURVEY





THANK YOU

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