

# AI Agents in the Classroom: Designing Your Own AI Assistant

Explore how AI Agents & Chatbots can serve real pedagogical goals—from supporting student inquiry to offering scalable, ethical feedback. This session introduces no-code and open-source tools for building custom teaching assistants that extend your presence, foster independent learning, and empower students when used with care and transparency.



## Hey, everyone! My name is Rodrigo

## Full Professor of English, San Diego Miramar College Faculty Specialist for Emerging Tech - II&E

- ▼ A little more about me
  - Teaching at Miramar since: 2016
  - **Focus**: Rhetoric, Composition, and Literature; pedagogical development; emerging technologies, like Al
  - Interests:
    - Poetry; Gamification & EdTech; Web3 Technologies
  - Goal: Enhance Web3 Literacy and use emerging technologies and innovative educational practices for both academic settings and professional environments

# Objectives

## By the end of this workshop, you will be able to:

- **Describe** what an Al agent is (vs. a chatbot) and name one pedagogy-first use case (inquiry or formative feedback).
- Spot one course task to pilot an agent with clear guardrails (allowed support vs. overreliance).
- Draft a student-facing transparency note (when/how to use, disclosure/verification, privacy/consent).

# Agentic AI refers to:



#### Goal-driven Digital Assistant

Al agents are autonomous digital assistants programmed to achieve specific goals. They can perform tasks, communicate with users, and adapt to different situations based on their programming and learning capabilities.



#### Custom-built Teammate

Think of an AI agent as a specialized teammate designed with specific skills to handle particular tasks. They bring expertise and consistency to repetitive or complex processes.



## LEGO-like Building Blocks

Modern platforms provide modular components that creators can assemble like LEGO pieces to construct agents with unique capabilities and behaviors without deep technical knowledge.



# Agents vs. Chatbots: What's the Difference?

#### **Traditional Chatbots**

- Rule-based: Follow predefined scripts and patterns.
- **Reactive:** Only respond to prompts; no initiative or planning.
- Narrow Q&A: Designed for short, domain-limited dialogue.
- **No tools or memory:** Can't call external systems or learn beyond what's coded.

## **AI Agents**

- **Goal-oriented:** Plan multi-step actions to achieve objectives.
- Proactive & autonomous: Take initiative within guardrails;
   monitor and adjust.
- **Tool-using:** Call APIs, search, write files, update docs, interact with apps.
- Adaptive & modular: Maintain memory, learn from feedback, swap in specialized components.

Bottom Line: All agents are chatbots, but not all chatbots are agents



## What Can AI Agents & Chatbots Do?



#### **Tutor Bot**

Provides personalized writing feedback, suggests improvements, and guides students through learning materials at their own pace, offering 24/7 educational support.



#### Research Assistant

Efficiently pulls information from multiple sources, summarizes findings, and helps organize research materials, saving valuable time for deeper analysis and learning.



#### **Event Planner**

Handles the logistics of scheduling by booking appointments, sending email reminders, and coordinating details, ensuring smooth organizational processes.



#### Help Desk Agent

Answers frequently asked questions in your institutional voice and tone, providing consistent support while freeing human staff for more complex inquiries.



# Agentic Building Platforms

#### General Purpose Platforms

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

#### Specialized Frameworks

- <u>CrewAl</u> Multi-agent collaboration
- MindStudio Advanced reasoning capabilities
- <u>Build-a-Bot</u> Simplified interface

#### **Education-Focused Tools**

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

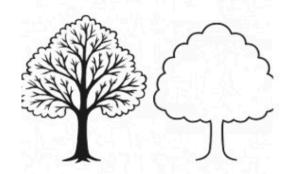


## All Agent Platforms Are Modular

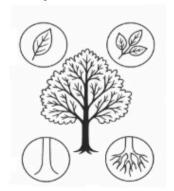
Element	Description	Example
Role	Personality + Purpose	Motivational coach
Tasks	What the bot can do	Summarize text, send tips
Workflow	When and how it activates	Every morning, on demand
Knowledge	What it knows or learns from	Docs, links, uploaded files

Understanding these key components is essential for creating effective AI agents. Each element works together to form a cohesive assistant that can truly meet your specific educational needs. By customizing each module, you can craft an agent that perfectly complements your teaching style and curriculum goals.

#### Please Note: Good Agentic Building relies on Computational Thinking



**Abstraction** - find and focus on the important details and ignore what's not important.



**Decomposition** - break something into smaller parts.



**Algorithmic thinking** - using steps or rules to solve a problem or accomplish a task.



**Pattern Recognition** 

 notice parts that repeat or look the same

# Build Your Bot Blueprint

#### Name & Role

Start by defining your bot's personality and purpose. Is it a friendly tutor, a structured organizer, or perhaps a curious research companion? The personality should align with its educational role and the types of interactions students will have with it.

#### Tasks (3 max)

Identify the specific actions your bot will perform. Limit to three core tasks to ensure your agent excels at its primary functions rather than being mediocre at many things. Focus on tasks that will provide the most value to your students.

#### Workflow Steps

Map out the trigger and sequence of steps your bot will follow. A clear workflow ensures consistent performance: Trigger → Step 1 → Step 2 → Step 3. This creates predictable interactions that students can rely on.

#### Knowledge Base

Determine what information your bot needs access to. This includes topics, files, and URLs that will form its foundational knowledge. The more relevant your knowledge base, the more helpful your bot will be.

## Choose Your Tool

#### PlaylabAI

A visually-oriented platform that excels in educational environments where flowchart-style development is preferred. PlaylabAl offers:

- Visual flowchart builder for intuitive design
- Creative tools optimized for classroom applications
- Fully customizable agent roles and behaviors
- Visual automation tools for complex workflows

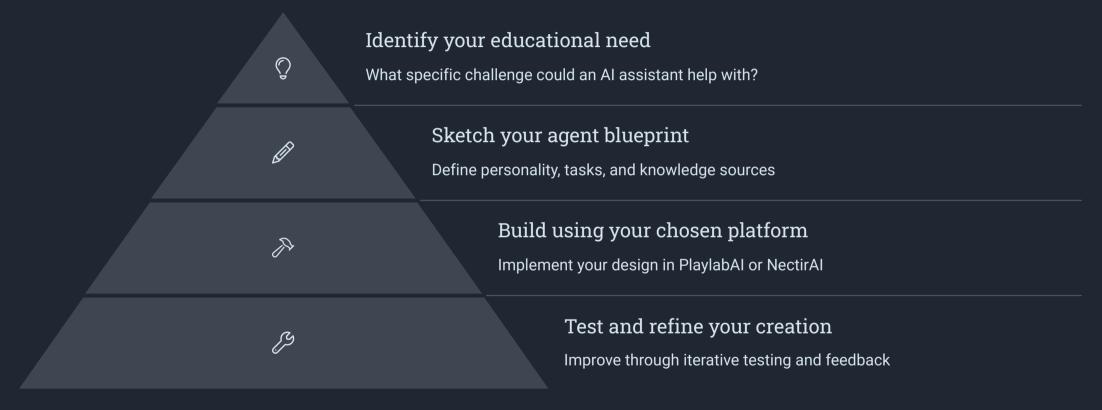
**Click here to Access Playlab!** 

#### NectirAI

A streamlined, text-based platform that prioritizes conversational interactions. NectirAl provides:

- Chat-first interface for natural development
- Personal assistant framework for student support
- Prompt-based and persona-driven design
- Simple trigger systems for quick implementation

## Build a Bot Activity!



This hands-on activity will guide you through the complete process of creating your first educational AI agent. You'll apply what you've learned about agent components while addressing a real need in your teaching practice. Work with partners to brainstorm ideas and provide feedback on each other's designs.

## Advanced Features

#### Memory

Advanced agents can develop evolving behavior patterns based on interactions, allowing for more personalized student experiences over time. This contextual awareness creates more natural and helpful interactions.

#### Multi-agent

Create collaborative agent "crews" that work together on complex tasks, each specializing in different aspects of student support or administrative functions.



#### Customization

Enhance engagement with voice options, custom images, and avatar selections that match your institutional identity and appeal to your specific student population.

## Integrations

Connect your agent to calendars, forms, and Learning Management Systems to create seamless workflows across your educational technology ecosystem.

## Wrap-Up / Launch Prompt

## <u>20</u>

#### Choose Use Case

Identify the specific educational need or challenge your AI agent will address. Focus on areas where automation and consistent support will have the greatest impact on student learning.



#### Pick Platform

Select either PlaylabAI or NectirAI based on your preferred workflow style and the specific features that best match your project requirements.



#### Complete Blueprint

Define all agent components including personality, tasks, workflows, and knowledge sources to create a comprehensive plan for development.



#### Launch & Refine

Deploy your agent, gather user feedback, and continuously improve its performance through iterative updates and enhancements.



#### **Upcoming Playlab Opportunity!**



Cultivating Skills for Community Training and Systemwide AI Readiness with PlayLab

Enhance your ability to train others in your community while boosting Al readiness on a broader scale. This partnership focuses on integrating Al into our teaching, student services, and operational sectors, equipping participants to spearhead localized professional learning experiences in Al readiness that align with Vision 2030.

The three-session Professional Learning Community (PLC) is part of the Chancellor's Office initiative to elevate Al literacy and preparedness throughout California Community Colleges.

THREE-SESSION PLC Mondays: October 27, November 3, November 10 6:00–7:30 PM

Register: https://luma.com/playlab\_cccco

#### Who Get's To Participate

- · Playlab Users (Faculty, staff, and administrators)
- By invitation / Part of systemwide initiativeColleagues who want to extend their PlayLab
- knowledge to their institutional partners.
- Prerequisite for colleagues who may want to participate in Part 2: Train-the-Trainer Certification | December 1, 8, 15 6pm - More info coming
- New to PlayLab? More sessions coming for Newcomers. We got you

#### COMPLETION

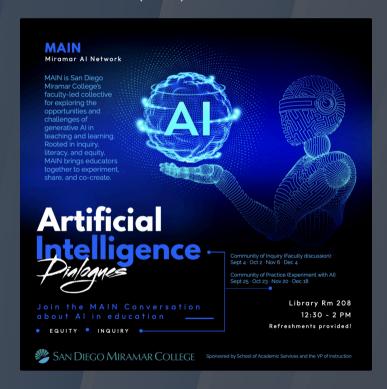
#### Facilitators

- Fabiola Torres-Reyes, Professor, Glendale CC | Al Fellow
- Scott James, Professor, Santiago Canyon College | Al Fellow
- Supported by Playlab AI team

#### **FAQs**

- **Q**: What is Train-the-Trainer? A: Gain skills to lead AI professional development at your campus and support colleagues systemwide.
- Q: Data privacy & accessibility? A: PlayLab is FERPA Compliant. Vetted by the Chancellor's Office
- Q: How does this honor shared governance? A: This initiative empowers CCC faculty and staff to lead—not corporations. ASCCC leadership and the CCCC AI Council ensure faculty voice guides all professional development.
- Q: Want PlayLab basics first? A: Playlab offers intro sessions. Check their event calendar online.
- Q: Will there be more opportunities? A: Yes! Spring 2026 or coming to your own campus and/or Regional Consortium.

I'll be doing another presentation on Agentic AI (Agents + Chatbots) later today, at the next Miramar AI Network (MAIN)



I also have "The Classroom Agent: Design Your Own Al Teaching Assistant" omorrow from 10:00 - 11:15 a.m. on Zoom. Please check emails!