

Alamo Colleges Online

The AI Model Matchmaker: Pairing AI Tools with QM Standards for Course Design Excellence

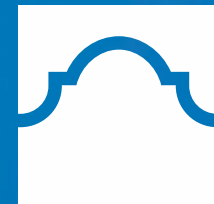
Office of the Vice Chancellor for Digital Learning and Transformation
Dr. Luke Dowden

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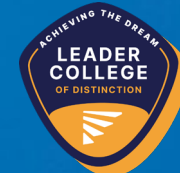
Instructional Designer, Alamo Colleges Online

Barbara Wong

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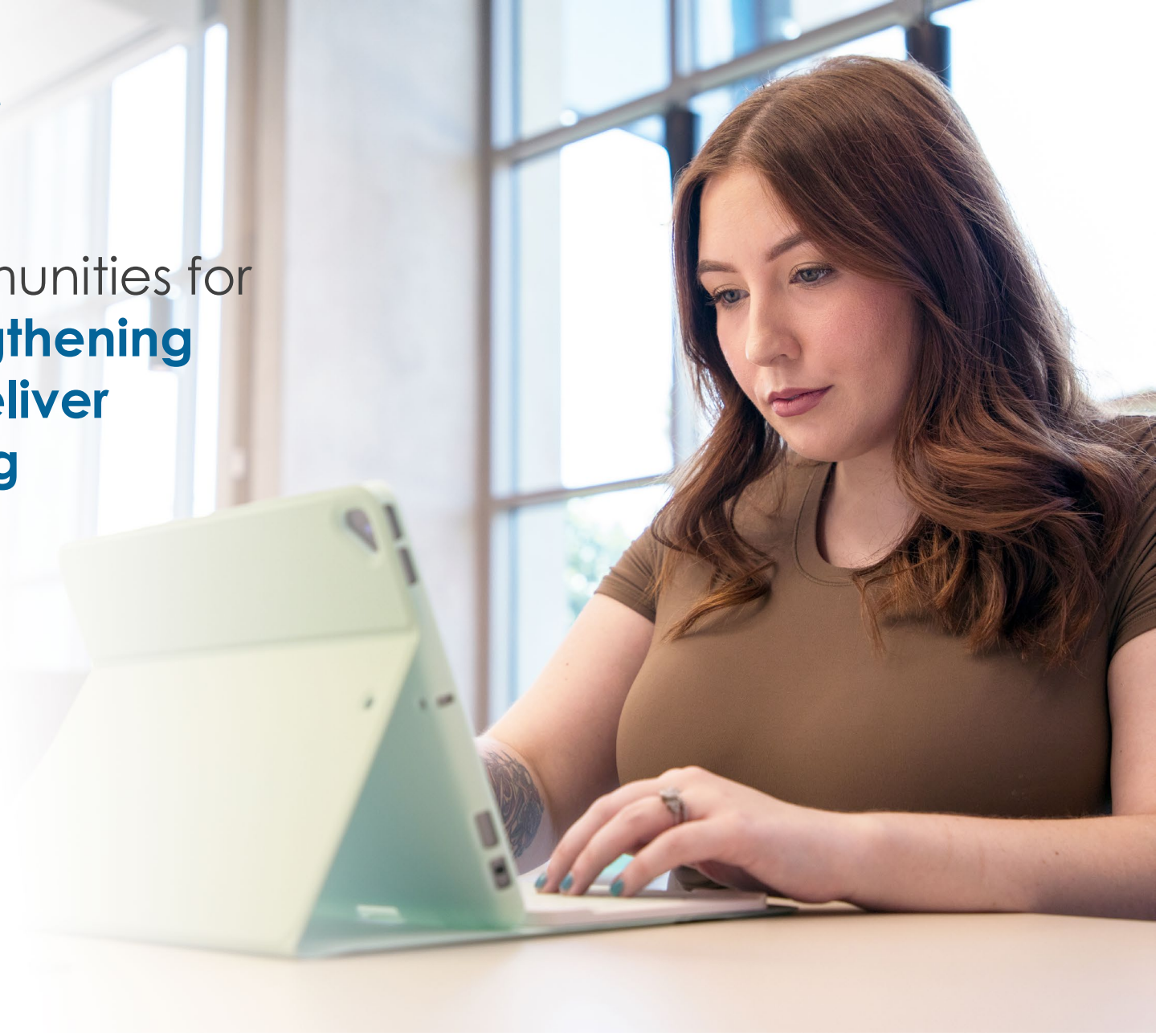
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Mission

Empowering our diverse communities for success **by building and strengthening each College's capacity to deliver premier, quality digital learning experiences for students.**



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Too Many AI Profiles

Too Many (AI) Profiles!



ChatGPT:
Creative &
Versatile,
sometimes too
flattery



Claude: Loves
good writing
and grammar;
may ghost you
without warning



Perplexity:
inquisitive,
resourceful,
and an action
taker



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The Google Family



Gemini: loves
long
conversations
and love
“facts”



NotebookLM:
loyal, loves to
learn and
expresses in
different ways



**Google AI
Studio:** Swiss
Army knife,
ever evolving
to stay edgy



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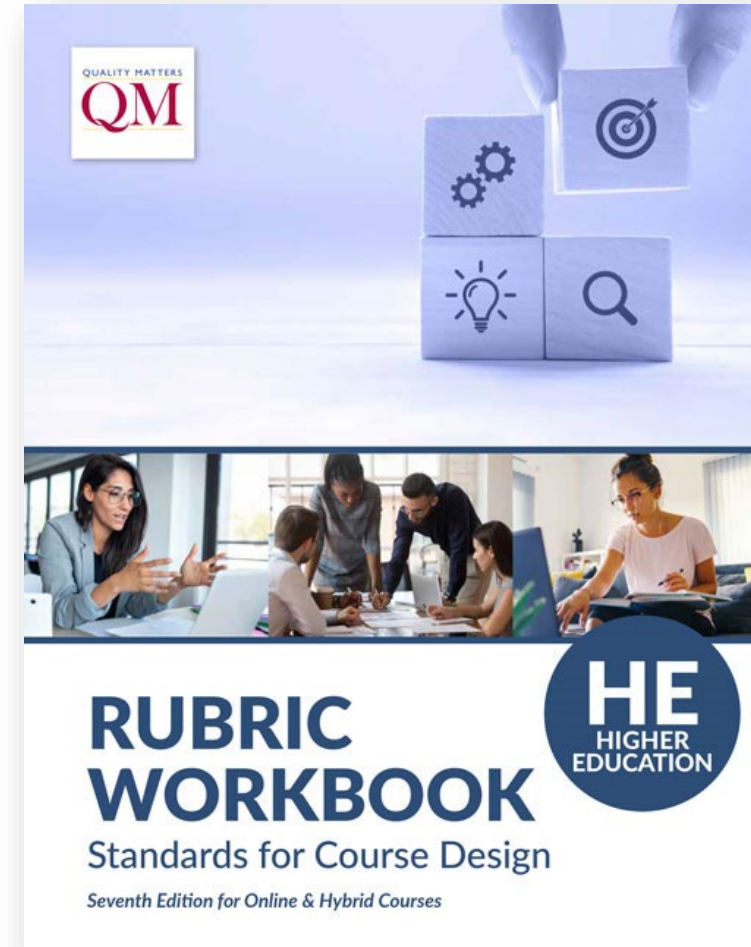
From Trial-and-Error to a Trusted Framework

Use AI within the “Box”

Our Matchmaking Objectives

To equip you with a systematic framework for pairing the right AI model architecture with specific QM standards to **enhance course design quality**

- **Differentiate** different AI model types (Pre-training, Reasoning and Agentic)
- **Map** AI tools to specific QM-aligned tasks for course design
- **Build** your own matchmaking matrix to take back to your institution



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Meet the "Personality" Types within Each AI

Pre-training, Reasoning & Agentic

AI “Personalities” (Models) Make the Difference

Pre-Training, Reasoning, Agentic

- **Pre-Training: The "Creative Librarian" | Junior Employee**

- Strengths: **recalling, summarizing, and reformatting information**
- Use cases: generating diverse content, brainstorming, and initial drafts
- Models: ChatGPT 5 (Instant) & 4o & 4.1, Claude Sonnet 4.5, NotebookLM

- **Reasoning: The "Deep Thinker" | Senior Employee**

- Strengths: **complex reasoning** and problem-solving with consistent **multi-step logic**
- Use cases: analyzing relationships, applying criteria, and maintaining context as the "why" and "how" expert
- Models: ChatGPT-5 (Thinking) & o-3, Claude Opus 4.1, Gemini 2.5 Pro, Perplexity Sonar

- **Agentic: The “Action Performer” | Project Manager**

- Strengths: research and **action**
- Use cases: automatically browsing the web, using and connecting apps, researching sources, and performing specialized tasks
- Models: Perplexity's Comet, Google AI Studio, “Deep Research”, “Agent Mode”



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The QM-AI Matchmaking Matrix (Selected Examples)

AI Personalities Meet QM Standards

QM General Standard (GS) & Use Cases	Best AI "Personality Type"	Top AI Tool Suggestions (as of Nov. 2025)
GS 2: Objectives & Alignment <ul style="list-style-type: none">Ensuring course alignment & building course map	Reasoning "Deep Thinker"	<ul style="list-style-type: none">ChatGPT-5 Thinking & o-3Claude Opus 4.1 Extended ThinkingGemini 2.5 Pro
GS 4: Instructional Materials <ul style="list-style-type: none">Adapting content for variety	Pre-training "Creative Librarian"	<ul style="list-style-type: none">NotebookLMChatGPT-5 Instant & 4o & 4.1Claude Sonnet 4.5
GS 8: Accessibility & Usability <ul style="list-style-type: none">Checking against accessibility standards	Agentic "Action Performer"	<ul style="list-style-type: none">Google AI StudioPerplexity Comet



Scan to access the **full** Matrix & Prompting Guide



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Use Case #1 – Course Map with Reasoning Models

ChatGPT-5 Thinking & o-3, Claude Opus 4.1, Gemini 2.5 Pro, Sonar

Context Needed:

1. Course Content Document (CLOs, MLOs, Materials, Activities, Assessment, Tech Tools)
2. Course Map Draft/Template

Prompt Example:

Create a **Course Map** in the table format that focus on the **alignment**

1. Do not change the CLOs
2. Map MLOs to align with CLOs. Format Example: MLO 1.1 (CLO 1.1, 1.2)
 - If misaligned, suggest specific ways to update the MLO(s)
 - Must be measurable based on the Bloom's Taxonomy
3. Check alignment between MLO(s) and other course components (materials, activities, assessment and tech tools). Format Example: Reading [Title] (MLO 1.1)
 - If misaligned, provide a new MLO or new activities, assessment and tools
 - Show which CLO(s) does the new MLO support
4. Each CLO should be supported by one or more MLOs. Each MLO should be supported by one or more course components (materials, activities, assessment and tech tools)
5. ***Any clarification or more context needed before starting?***



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OpenAI Reasoning: GPT-5 Thinking & o3

ChatGPT 5 ▾

GPT-5

Auto
Decides how long to think

Instant
Answers right away

Thinking mini
Thinks quickly

Thinking
Thinks longer for better answers

Pro
Research-grade intelligence

Legacy models

Upgrade

>

GPT-4o

GPT-4.1

o3

o4-mini

ChatGPT 5 Thinking ▾

What can I help with?

Ask anything

+ Extended thinking ▾

Thinking time

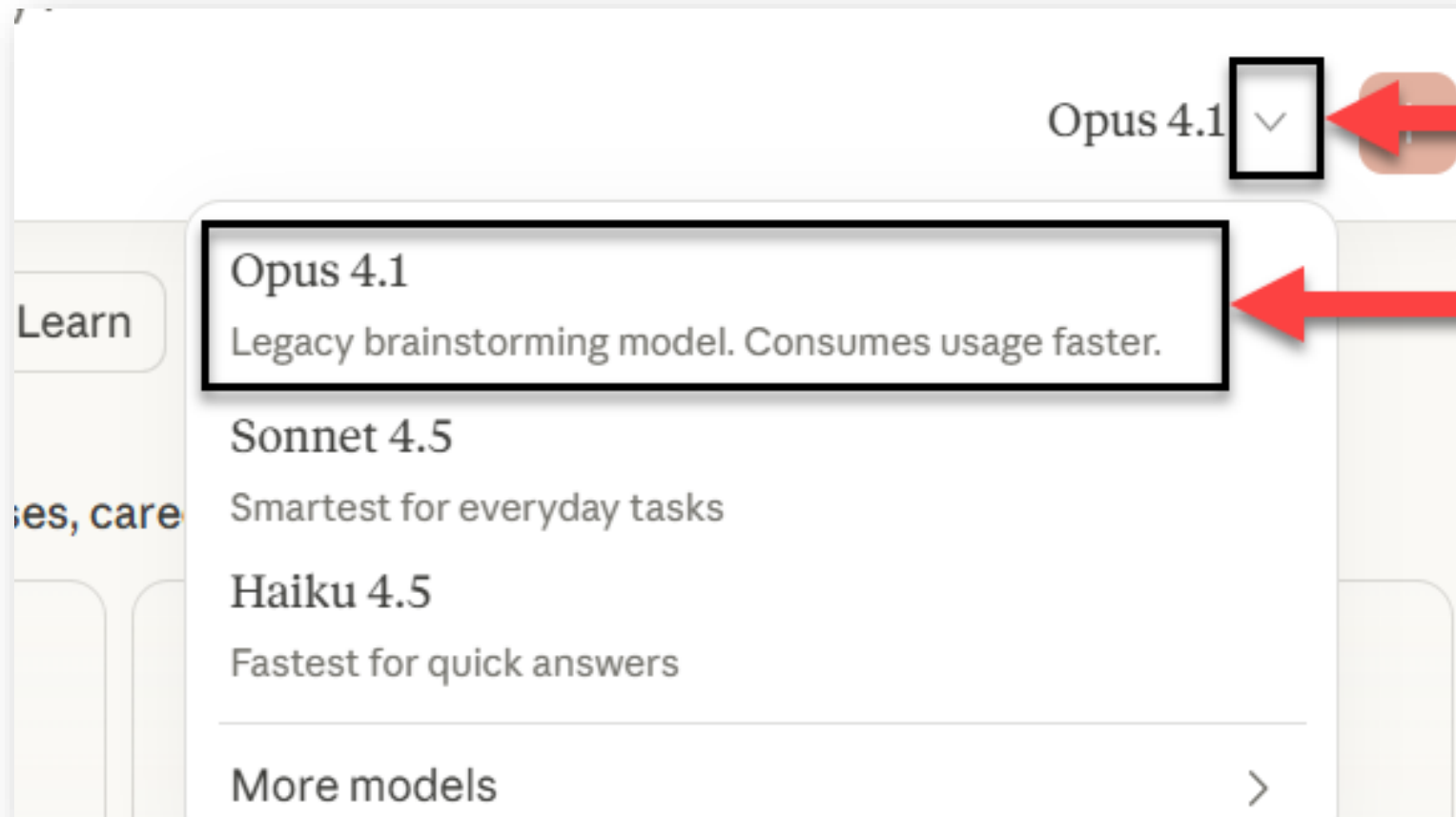
Standard

Extended

Thinks longer for complex questions



Anthropic Reasoning: Opus 4.1+ Extended Thinking

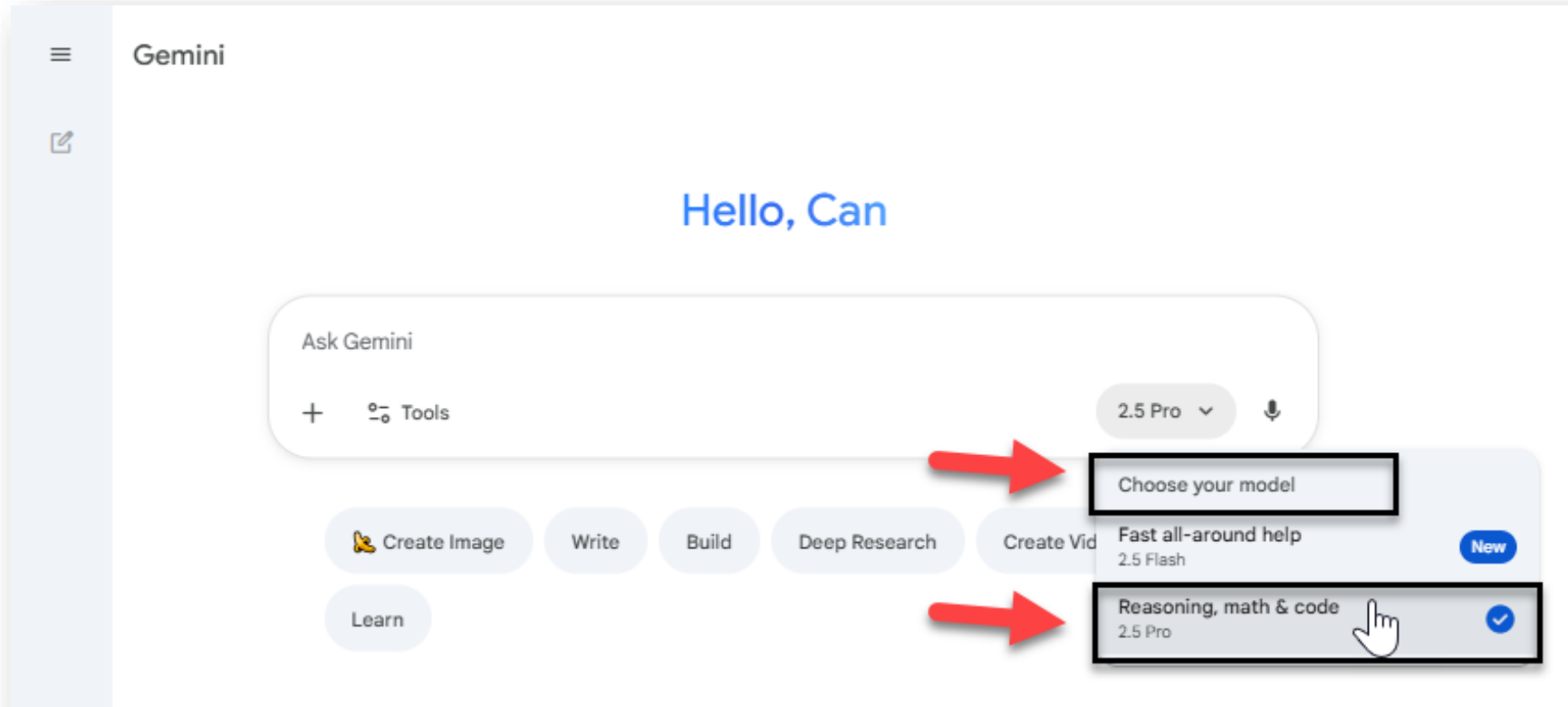


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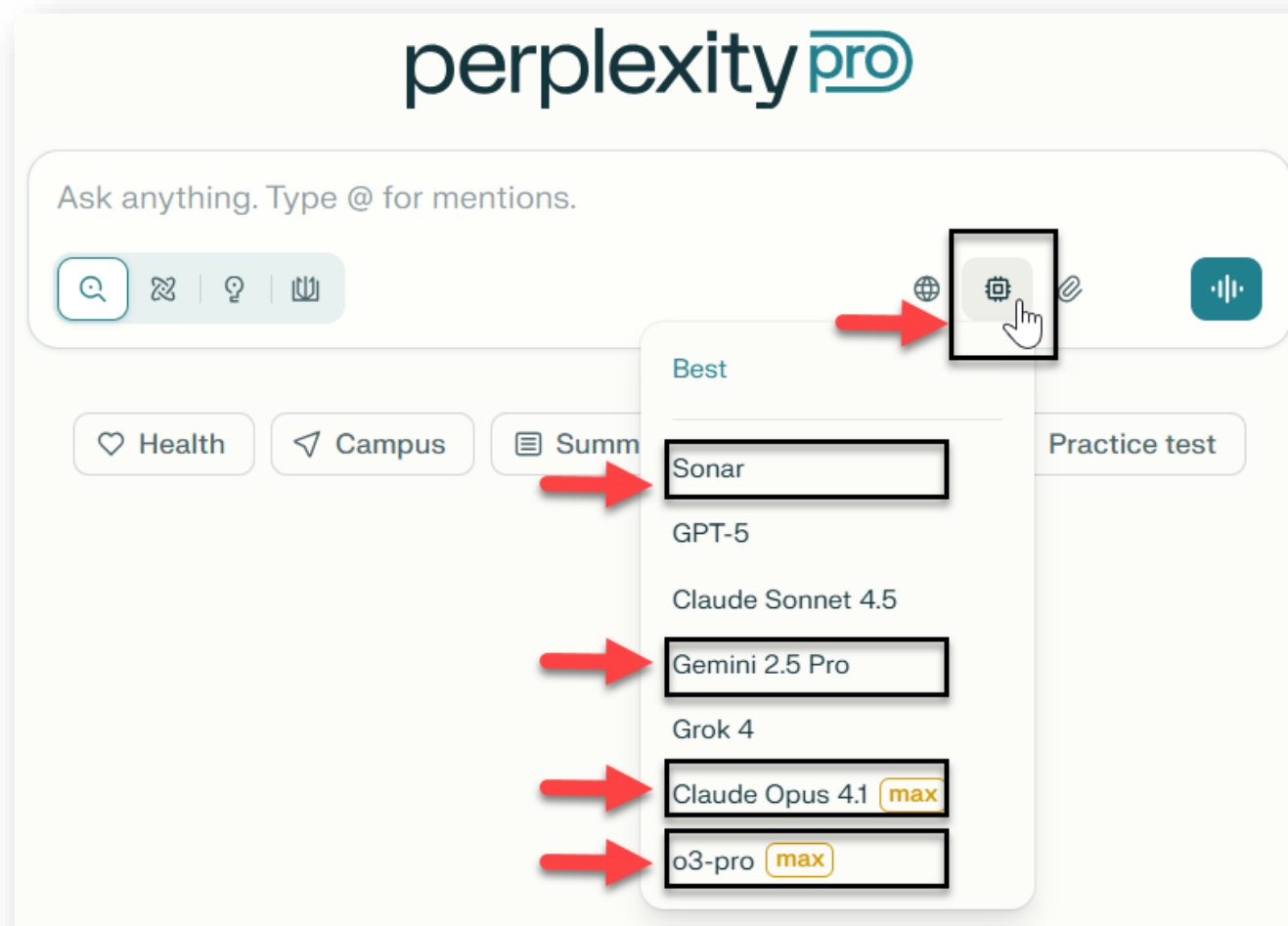
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Google Reasoning: Gemini 2.5 Pro



Perplexity Reasoning: Sonar & Other LLMs



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Use Case #2 – Diversify Materials with Pre-training Models

ChatGPT-5 Instant & 4o & 4.1, Claude Sonnet 4.5, NotebookLM

Context Needed:

1. Course Content Document (CLOs, MLOs, Materials)
2. QM General Standard 4: Instructional Materials
 - A Variety of contextualized instructional materials enables learners to achieve the stated learning objectives.
3. Universal Design for Learning (Engagement, Representation, Expression)
4. Learner characteristics and proficiency level

Prompt Example:

1. Review the content against standards
2. Diversify the existing materials to support active learning and engagement for all learners
3. Production
 - Mind Map
 - Video Overview
 - Audio Overview
4. **Verify, edit, share; Demo, exchange, critique**

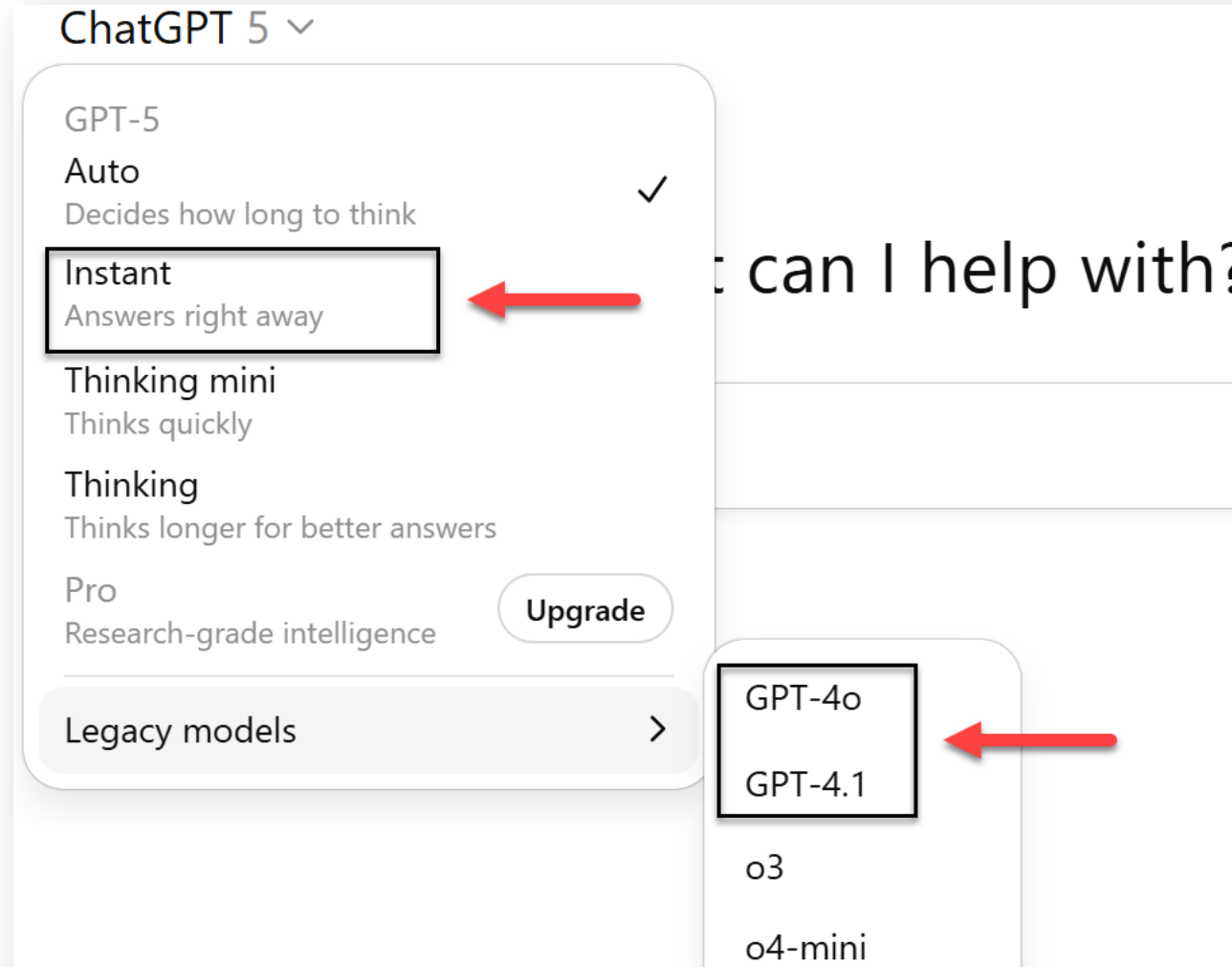


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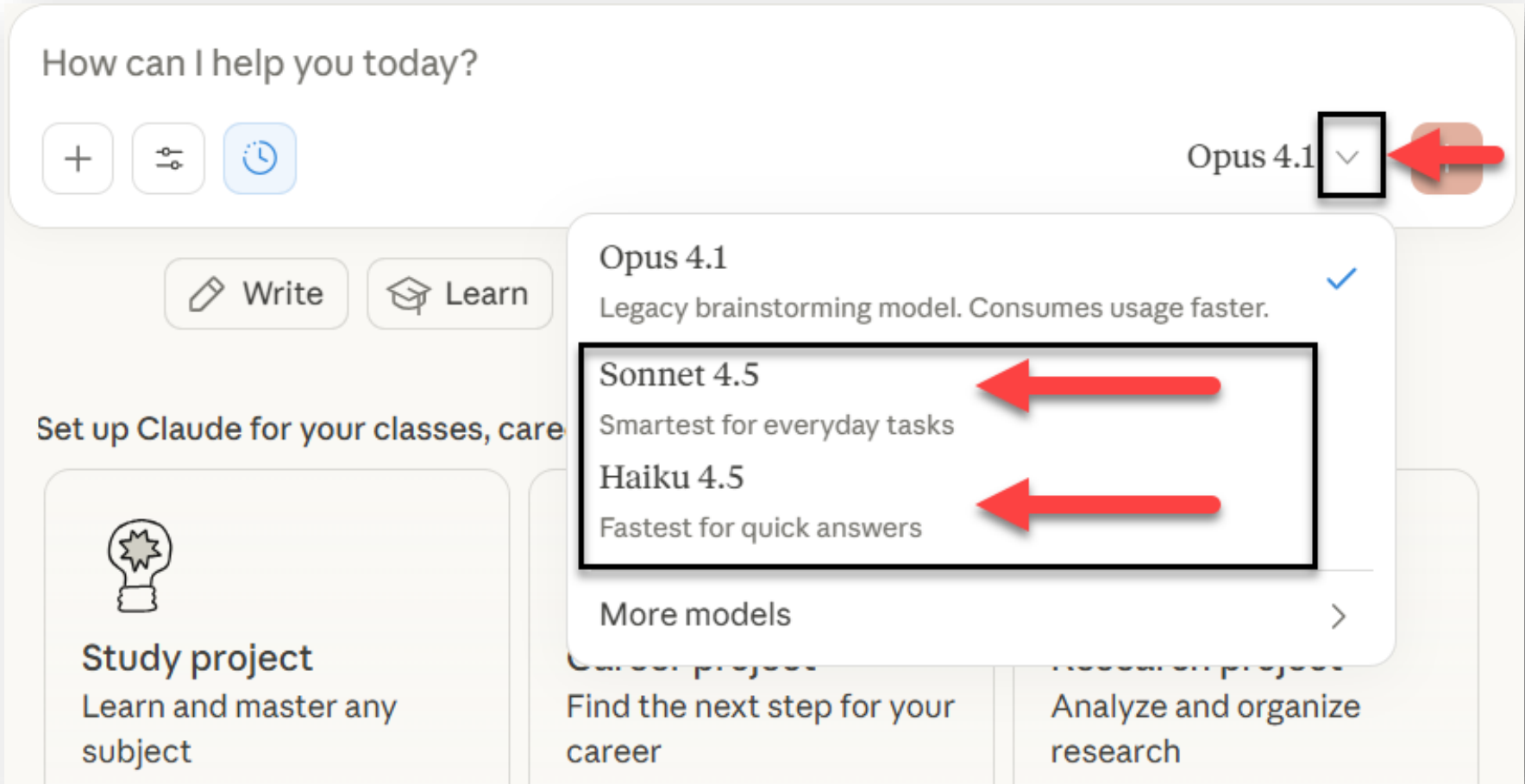
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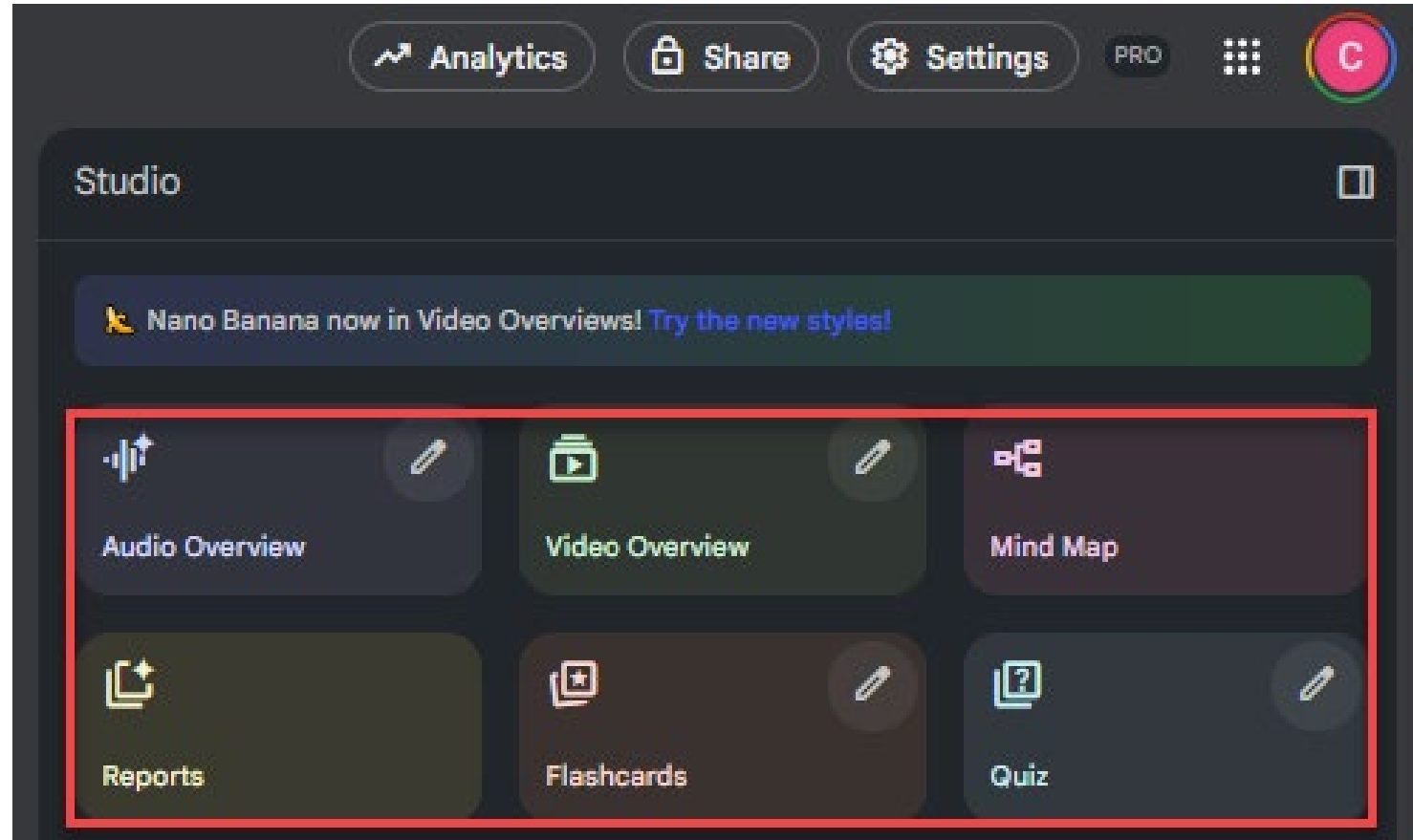
OpenAI Pre-Training: GPT-5 Instant & 4o & 4.1



Anthropic Pre-Training: Sonnet 4.5 & Haiku 4.5



Google Pre-training: NotebookLM



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Use Case #3 – Accessibility Assistance with Agents

Google AI Studio “Stream”, Perplexity Comet Browser

Context Needed:

1. Files or public pages
2. QM General Standard 8, WCAG 2.1 AA

Prompt Example:

1. Point out the specific accessibility issues and cite the specific standard to prove your statement
2. Give me specific steps on how to fix the issues listed

Caution: *Check with Institution IT before access proprietary systems!*



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Google Agentic: “Stream Realtime”

Google AI Studio

Stream realtime

Home
Chat
Build
Dashboard
Documentation

Talk to Gemini live

Talk Webcam **Share Screen**

Run settings < > Get code

Gemini 2.5 Flash Native Audio Preview 09-2025

gemini-2.5-flash-native-audio-preview-09-2025

Our native audio models optimized for higher quality audio outputs with better pacing, voice naturalness, verbosity, and mood.

System instructions

Optional tone and style instructions for the model



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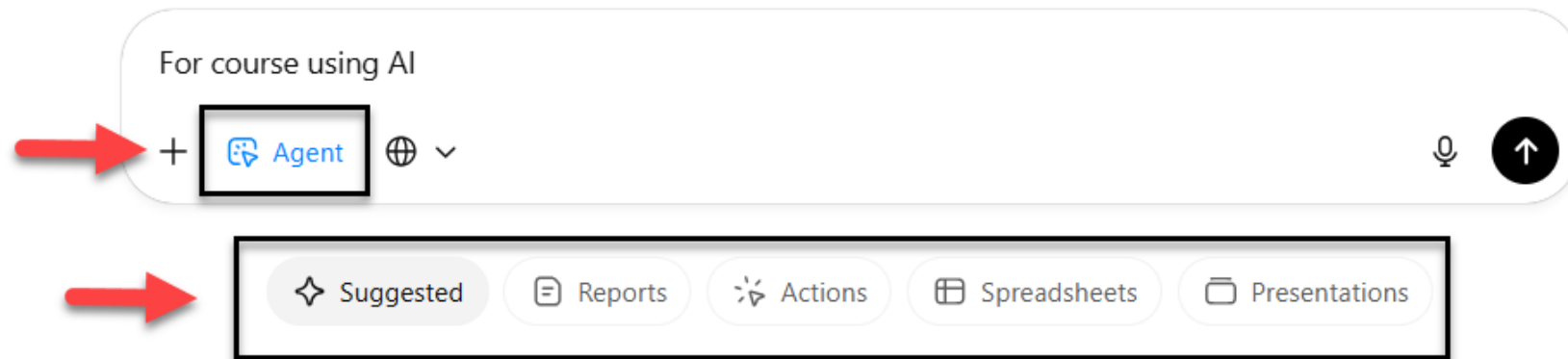
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OpenAI Agentic: Agent Mode & Deep Research

ChatGPT

What can I do for you?

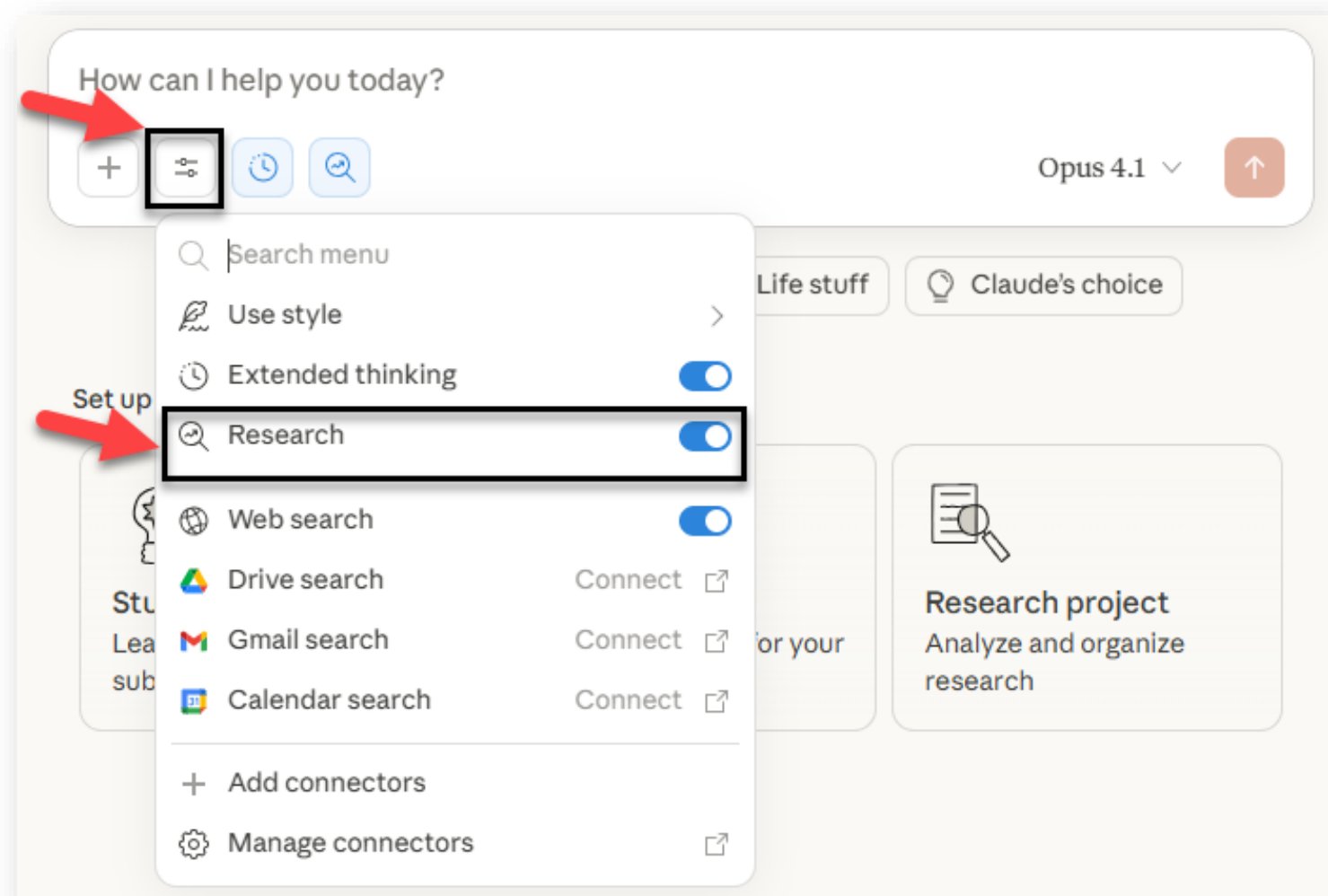


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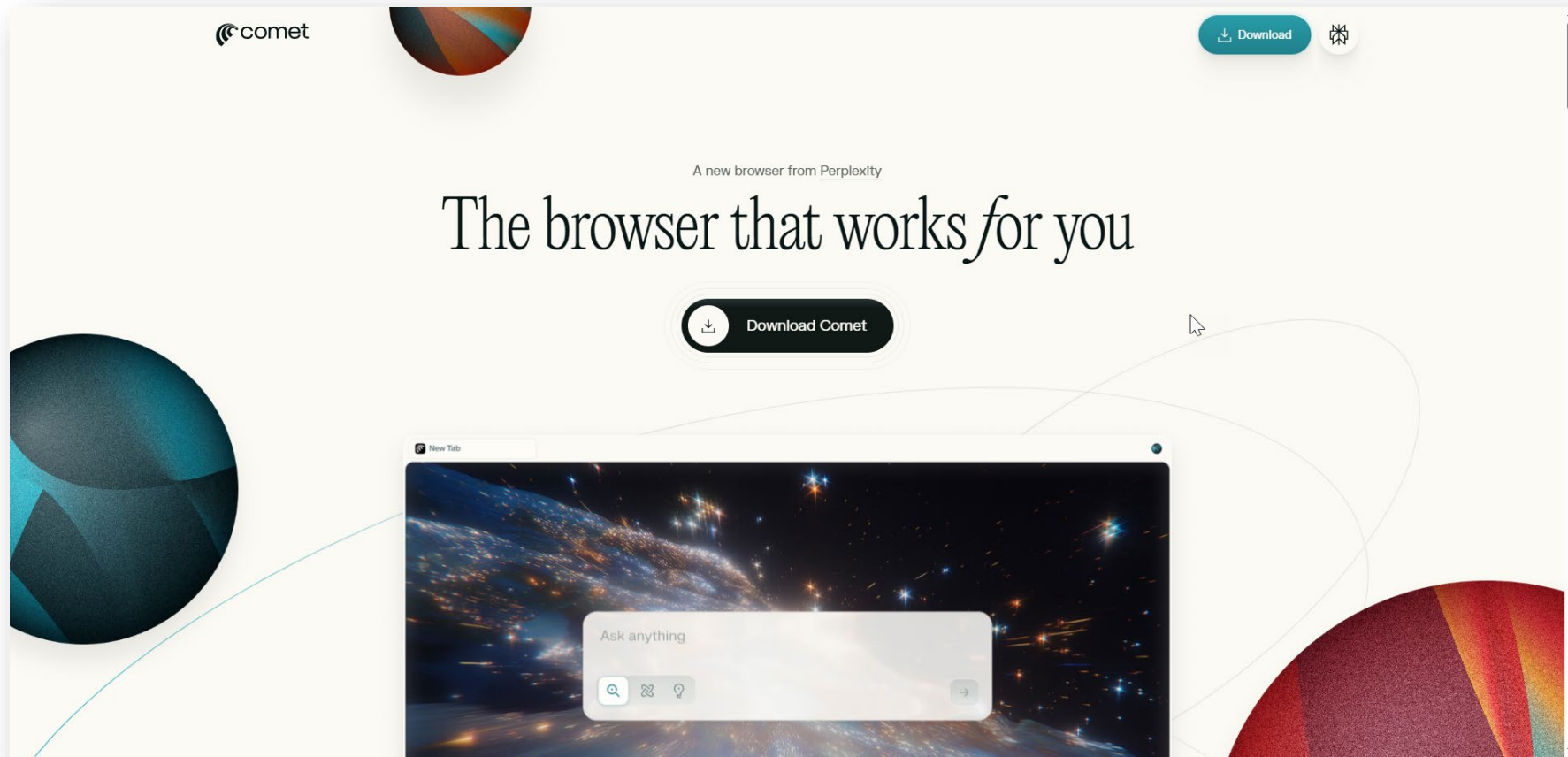
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Anthropic Agentic: Research



Perplexity Agentic: Comet Agentic Browser



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Build Your Roadmap & Takeaways

AI-Enhanced & QM-Aligned Course Design

Key Takeaways

- **Think Type, Not Just Tool**
 - Match the "Personality" (Reasoning, Pre-training, Agentic) to the task.
- **Use QM as Your Guide**
 - Let quality standards define the "why" for using any AI.
- **AI Drafts, You Refine**
 - AI is a powerful assistant, not a replacement for your expertise.
- **Start Small**
 - Pick one task from your matrix and experiment!



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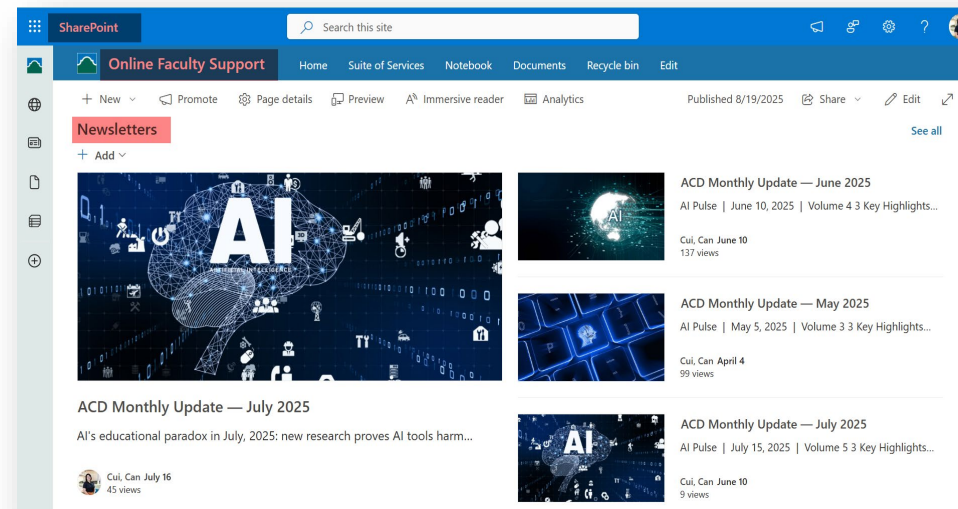
Easter Egg: Keep Up with AI Development

“ACD AI Pulse” Newsletter

Scalable local Solution: AI Pulse Newsletter (Monthly)

- Latest development and trends in AI for learning & teaching made for you!

- 3 Key Highlights
- Tools Alert
- Resources
- Free Webinars
- Insights



SharePoint Access through **Institutional Portal** and **Faculty Newsletter**



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Self-Paced Faculty Training (Under Review)

Canvas course: Next-Gen Course Design – AI Models Meet Quality Matters

Next-Gen Course Design

AI Models Meet Quality Matters



Start Here

Course Structure

Resource Hub

AI Community

Welcome!

Tired of swiping left on generic AI advice for course design? Ready to find the perfect match between powerful AI tools and the QM standards you know and trust? This course is your specialized matchmaking service! We move beyond the surface level hype and show you which AI models (from hybrid savvy reasoners like Claude Opus 4.1 to efficient pre-trained generators like ChatGPT 5 Instant, to agentic models like Deep Research, and even customizable Google AI Studio) excel at specific QM-aligned tasks.

Learn to leverage AI strategically to enhance course objectives, assessments, materials, activities, technology integration, and accessibility – all while upholding the quality assurance principles central to Alamo Colleges District. Forget trial-and-error; leave this course with a practical framework, specific prompts, and QM-aligned deliverables to build better online courses, faster and smarter. Let's enhance your course design superpowers!

Structure Overview

This course follows a structured path, starting with foundational AI knowledge and then diving deep into specific QM General Standards, pairing them with suitable AI models and tools for practical application.

Module List	Module Content	Estimated Time*
Module 0: Course Orientation	Setting the Stage: Course Goals, Objectives, Structure, and Your QM Compass.	1 Hour
Module 1: AI Basics: Building Foundations	Identifying AI terminology, development trends, model types (pre-training, reasoning, agentic), and foundational prompting techniques.	2 - 3 Hours
Module 2: Charting the Course with Reasoning AI (Claude Opus 4.1): Objectives (GS 2) & Alignment	Using Reasoning Models (like Claude Opus 4.1) for crafting measurable objectives and ensuring course alignment (SRS 2.1-2.5, 3.1, 4.1, 5.1, 6.1).	3 - 4 Hours
Module 3: Measuring Success with ChatGPT Models (o3 & 5): Assessment & Measurement (GS 3)	Employing Reasoning (like ChatGPT o-3 & 5 Thinking) and Pre-Training Models (like ChatGPT 5 Instant & 4o) for designing grading policies, formative/summative assessments, and rubrics (SRS 3.2, 3.3, 3.4, 3.6).	3 - 4 Hours
Module 4: Fueling Learning with Google AI Models (Gemini 2.5 Pro & NotebookLM): Materials & Adaptation (GS 4)	Leveraging Reasoning (like Gemini 2.5) for material alignment and Pre-Training Models (like NotebookLM) for adapting and diversifying materials (SRS 4.2, 4.5).	3 - 4 Hours
Module 5: Igniting Engagement with Reasoning AIs: Activities & Interaction (GS 5)	Designing active learning activities and interaction plans using versatile Reasoning Models (Claude, ChatGPT o-3, or Gemini 2.5) (SRS 5.2, 5.3, 5.4).	4 - 5 Hours
Module 6: Powering Learning with Agentic AI (Deep Research): Technology Inspiration (QM GS 6)	Utilizing specialized Reasoning Models (like Perplexity Deep Research) for selecting engaging, varied, and appropriate technology (SRS 6.2, 6.3).	3 - 4 Hours
Module 7: Ensuring Access for All with Google AI Studio: Accessibility & Usability (GS 8)	Applying specialized AI (like Google AI Studio) to enhance navigation, readability, and ensure text/image accessibility (SRS 8.1, 8.2, 8.3, 8.4).	4 - 5 Hours

Course Structure at a Glance

*Estimated Time: Completing the module typically takes approximately [Estimated Time, e.g., 3-4 hours], including reviewing the materials, interacting with recommended AI tools and working with your own course materials.



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AI Pros: LMArena

- Leaderboard Overview
- How It Works
- Open Research

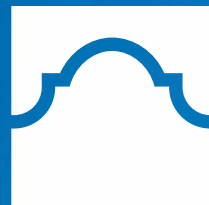


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Thank you!
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