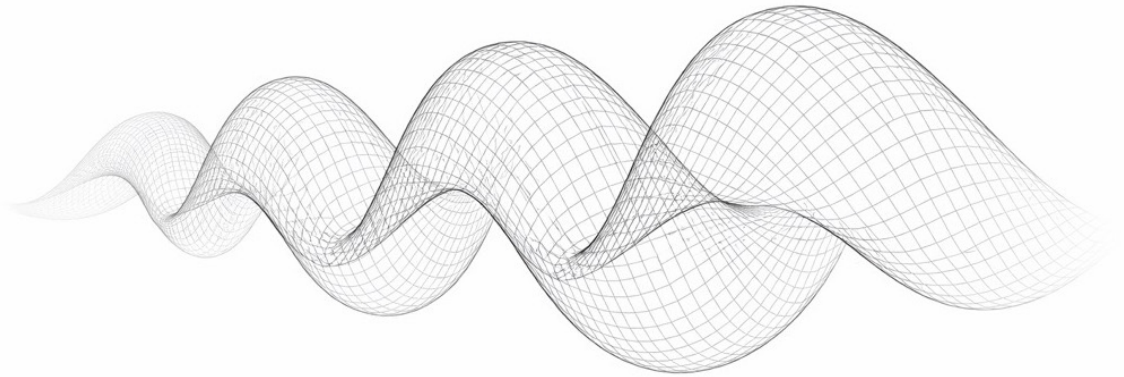


OLLI @ SOU

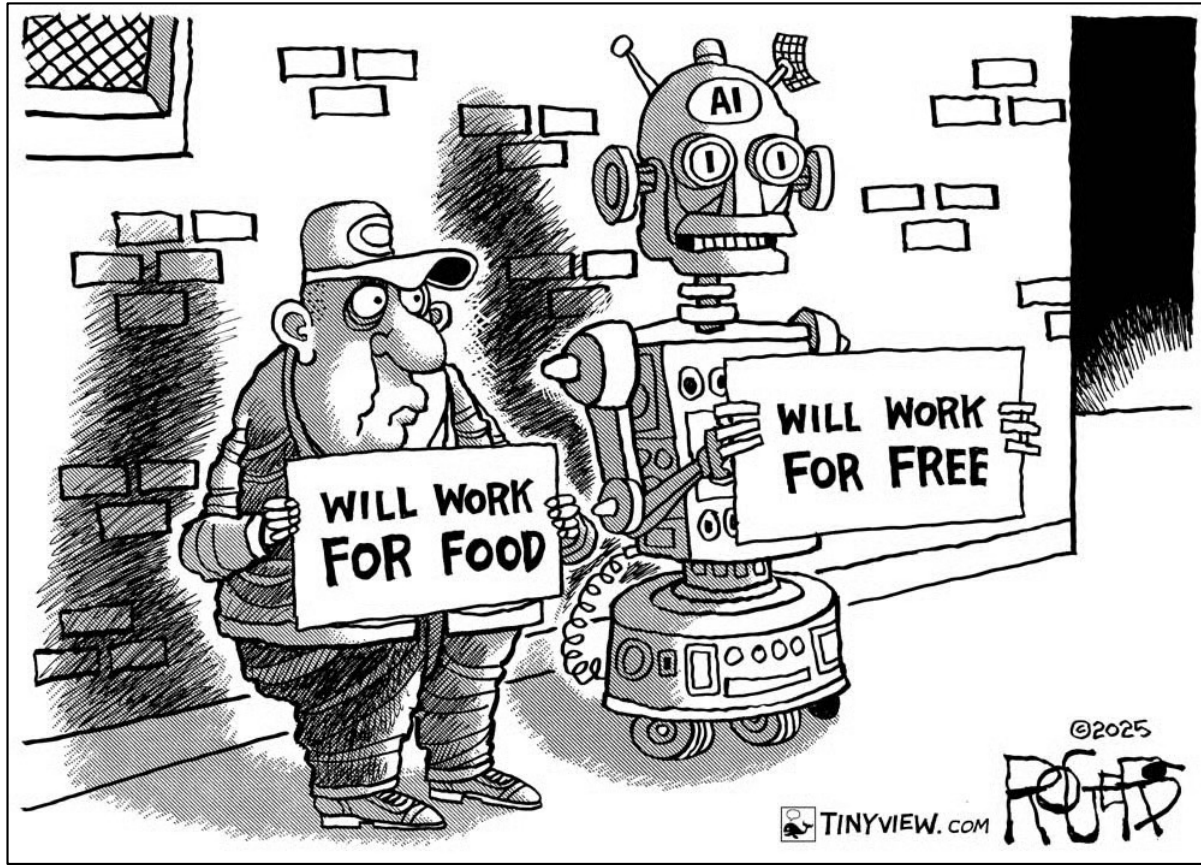


Continuing Experiments in Artificial Intelligence

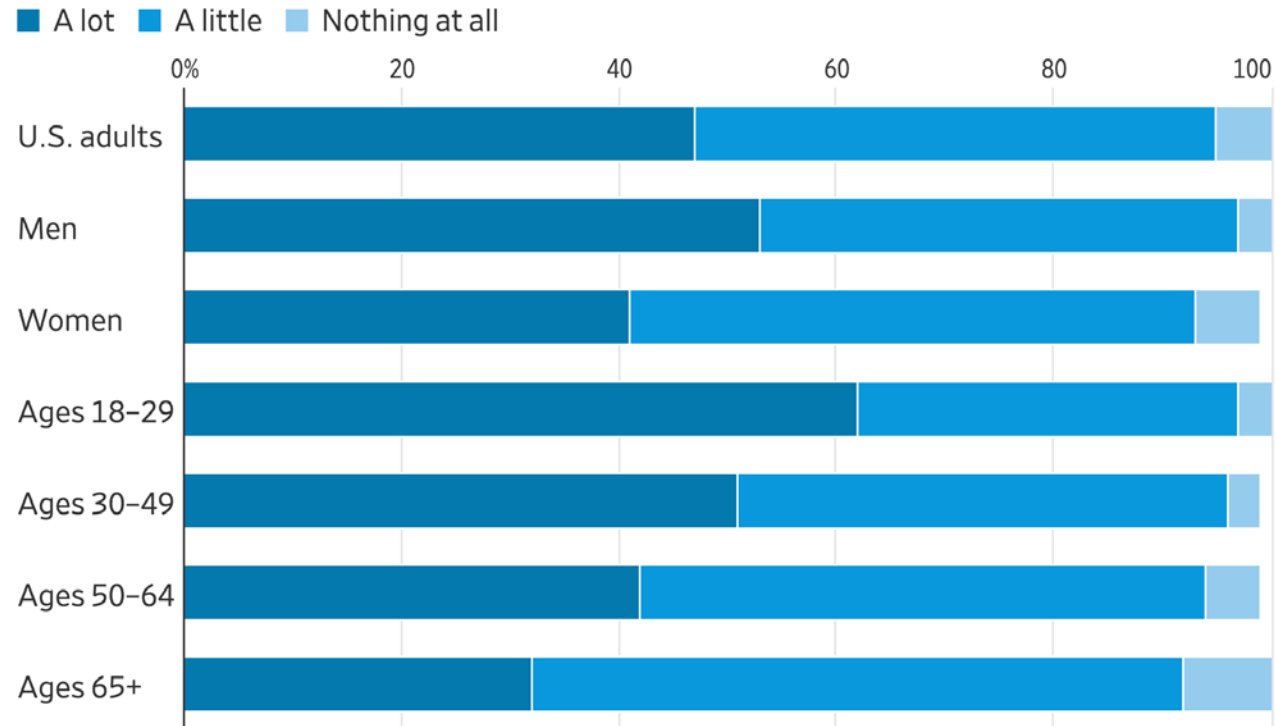
Session #1

February 11, 2026





Percentage who say they have heard or read about AI, by group



Note: Survey of U.S. adults conducted June 9-15, 2025. Respondents who didn't give an answer aren't shown.
Source: Pew Research Center

Instructor: James P. Jarrard

Professional

Department of Defense Education Activity (DoDEA/DoDDS)

Knowledge Manager for Peace Corps (HQ/DC) – 2000-2002

Adjunct Professor – Boston University, University of Maryland

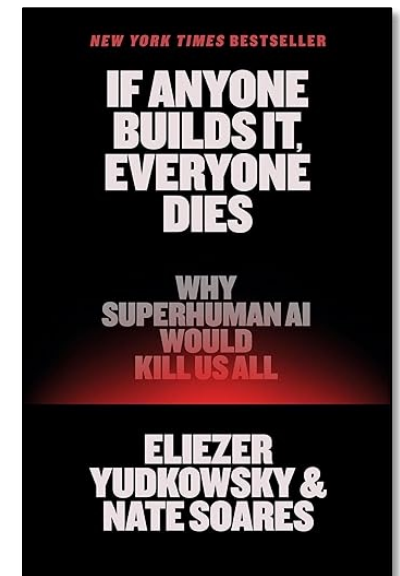
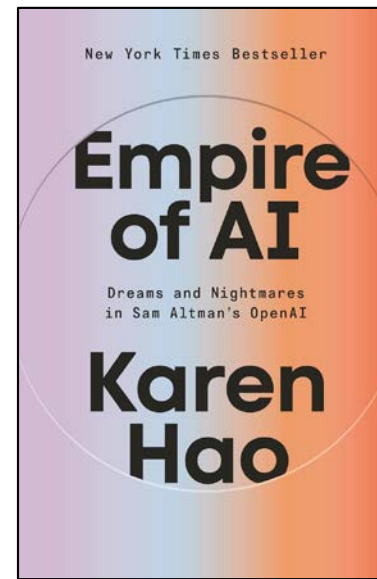
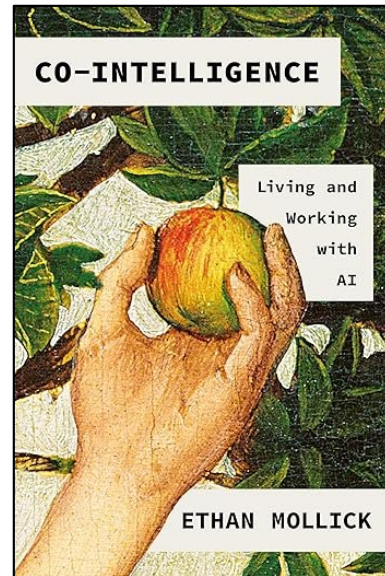
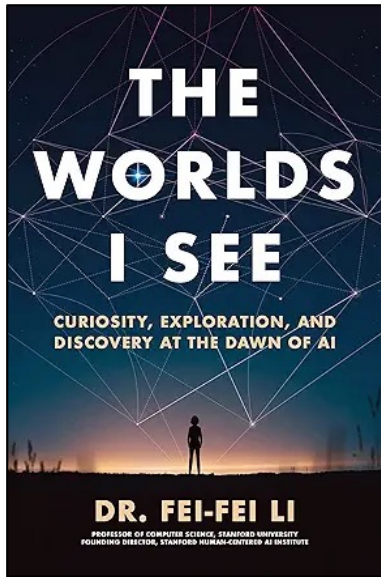
Education

University of Southern California (MS), Michigan State University (BA)

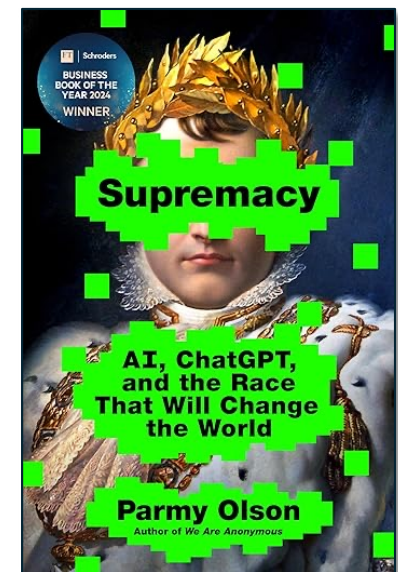
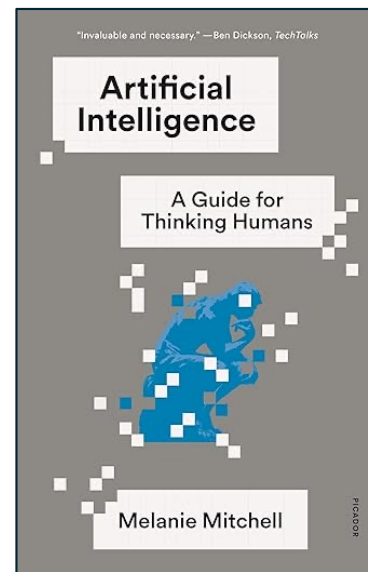
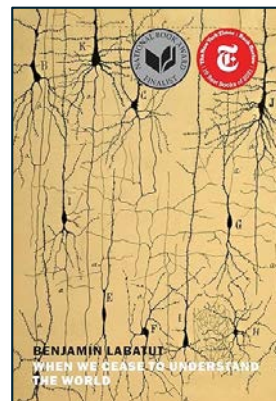
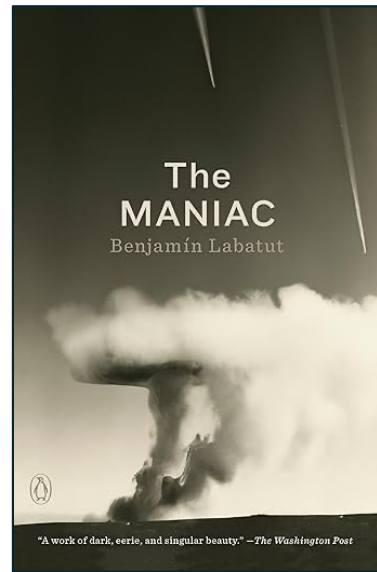
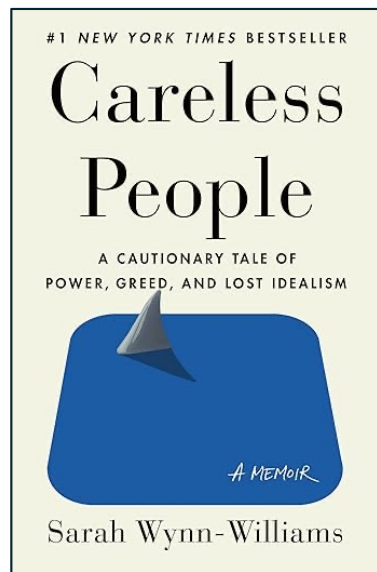
Language Experience

German (6 years), Japanese (3 years), ASL (2 years)

Ideas Generated by Reading



Ideas Generated by Reading



Vocabulary – Acronyms - Nomenclature

Version 1.1

Prompt

Inference

LLM – MMLM – SLM

Multimodal

NLP

AGI

RAG

Token

Hallucinations

Algorithm

Corpus

Compute

API

Models

Frontier Models

(values) Alignment

Workflow

Coding

Vocabulary – Acronyms - Nomenclature

Backpropagation

Bias (Social Bias vs. technical 'bias' (re: weight & bias in neuron))

Cognitive Load

RLHF (Reinforcement Learning from Human Feedback)

Enthusiastic Affirmation

Effective Altruism (EA)

Theory of Mind (ToM)

Vocabulary – Acronyms - Nomenclature

Version 2.03

Compute

Frontier

Context Aware

Context Window

Iteration

Workflow

Enthusiastic Affirmation

Digital Sycophancy

Superintelligence

Agentic

Storyboard

Multi-Modal

Vocabulary – Acronyms - Nomenclature

Version 2.03

Cognitive Offloading

Automation Bias

Pessimism Averse

Algorithm Appreciation

Algorithm Averse

Multi-Modal

Coreference Resolution

Stochastic Parrot

Digital Twin

MCP

Hyperscale

Vocabulary – Acronyms - Nomenclature

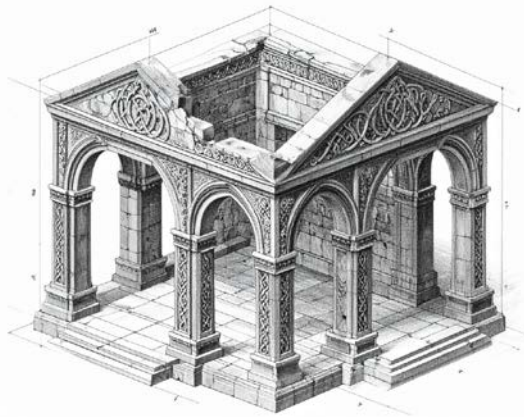
Context – Attention

Persistent Memory (scenarios – research w/ constant preface, or iterative edit of image)

Contextual framing (context setting, Custom Instructions, Persistent Instructions, Session Parameters)

Corpus

Constraints (legal, medical)



Context vs. Symbolism/Algorithmic/if...then

Agent/Agentic

Scale – Hyperscale

Doomer – Boomer

p(doom) – probability of doom scenario

Version 0.6d

Vocabulary – Acronyms - Nomenclature

Version 0.6d

Artifact

Markdown (.md, LaTeX, Lilypond)



Model Collapse

Misinformation vs. Disinformation

Emergent Behavior (unexpected behavior arising in large models)

Augmentation (augment human work, not replace humans)

Vector Database

Coreference Resolution

The city council refused the demonstrators a permit because **they** feared violence.

Who feared violence?

The city council refused the demonstrators a permit because **they** advocated violence.

Who advocated violence?

Coreference Resolution

The table won't fit through the doorway because **it** is too wide.

What is too wide?

The table won't fit through the doorway because **it** is too narrow.

What is too narrow?

Coreference Resolution

Humans usually resolve pronouns using:

- Context
- World knowledge
- Probability
- Social expectations

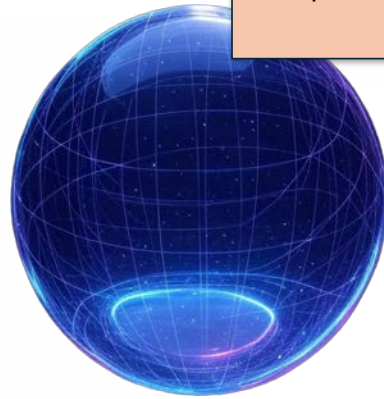
Computers must infer this statistically.

Coreference Resolution

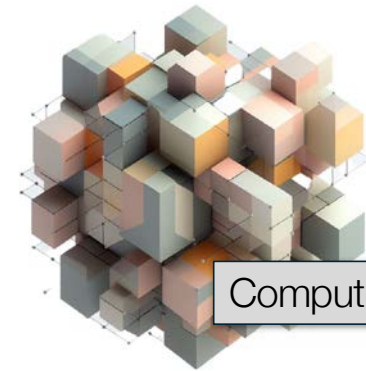
The real miracle of reading comprehension, AI experts said, is in reading between the lines – connecting concepts, reasoning with ideas and understanding implied messages that aren't specifically outlined in the text.

D. Harwell, Washington Post (1/16/18)

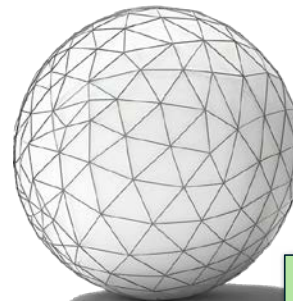
"AI Models Beat Human at Reading Comprehension, but They've Still Got a Ways to Go"



Graphics Composition Model

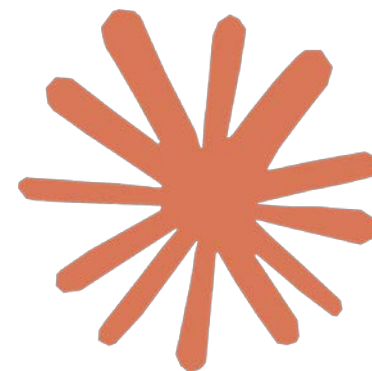
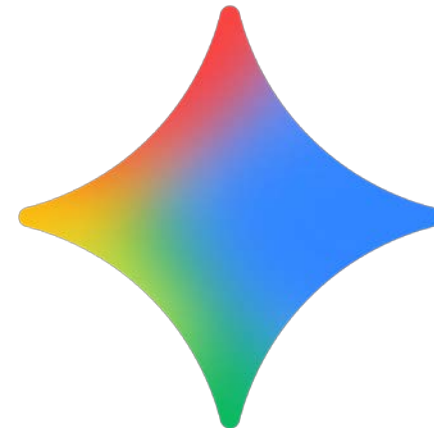


Computer Coding Model

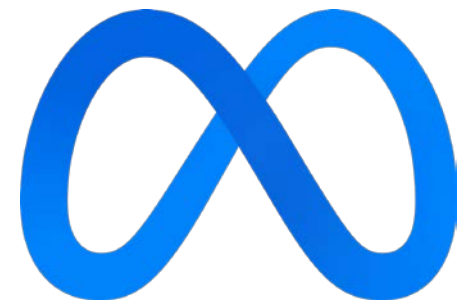


Multiple Language Models

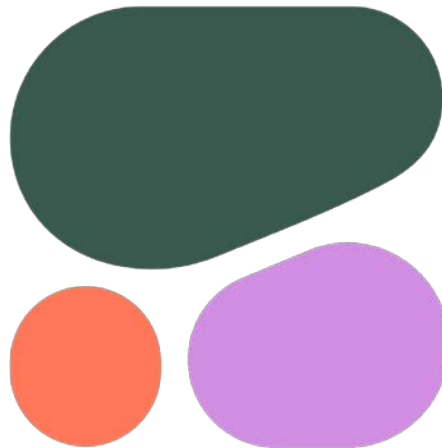
Can You Recognize These Companies?



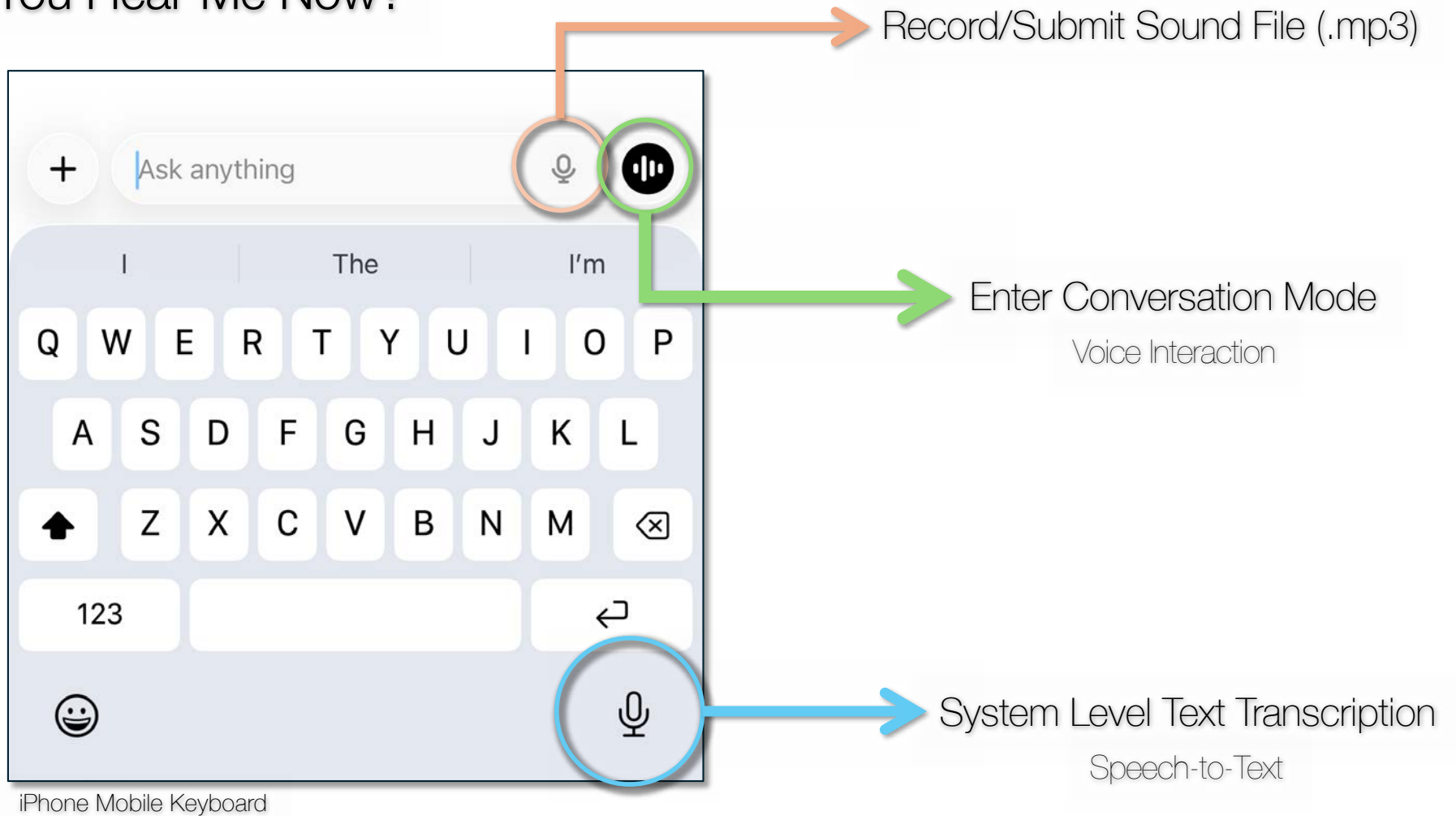
Can You Recognize These Companies?



Can You Recognize These Companies?



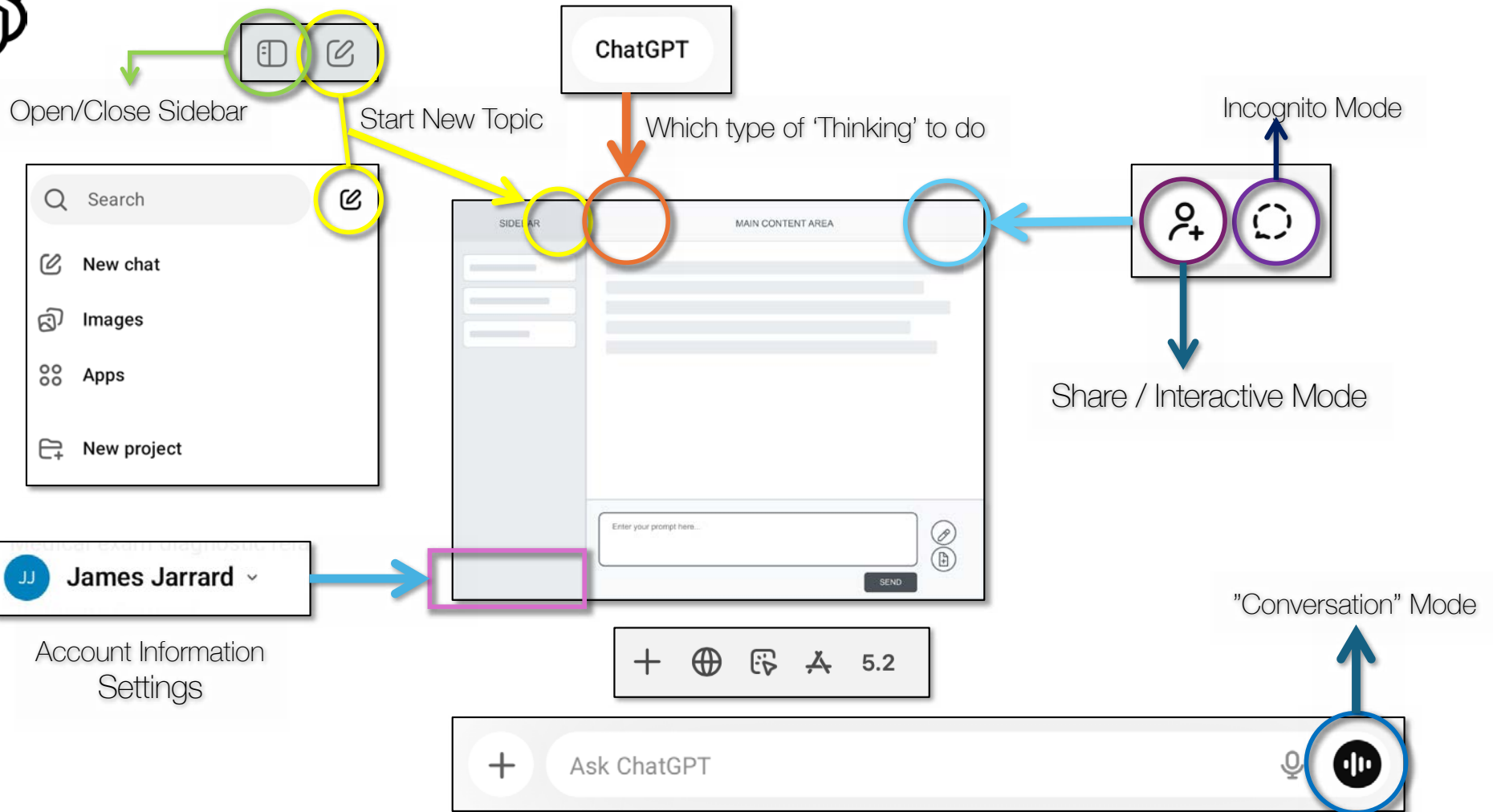
Can You Hear Me Now?



iPhone Mobile Keyboard

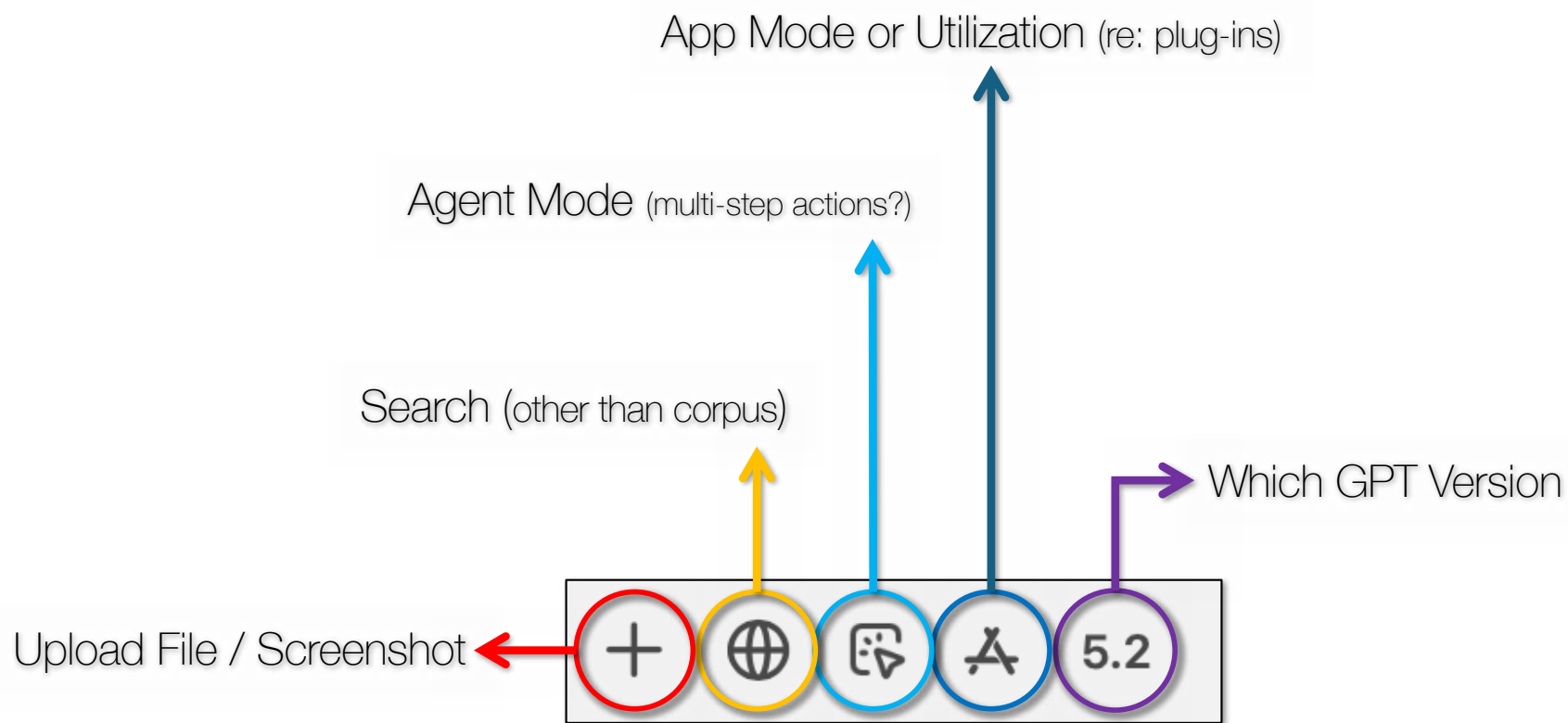
Prompt Editor – General Definition

The image shows a UI mockup of a 'Prompt Editor' interface. It is divided into two main sections: a 'SIDEBAR' on the left and a 'MAIN CONTENT AREA' on the right. The sidebar contains three white rectangular boxes, each with a horizontal grey bar inside. The main content area has a light grey header with the text 'MAIN CONTENT AREA'. Below the header, there are five horizontal grey bars of varying lengths, representing text or image placeholders. At the bottom of the main content area, there is a text input field with the placeholder text 'Enter your prompt here...'. To the right of the input field are two circular icons: one with a pencil (edit) and one with a document and a plus sign (add). Below the input field and icons is a dark grey button with the text 'SEND' in white.



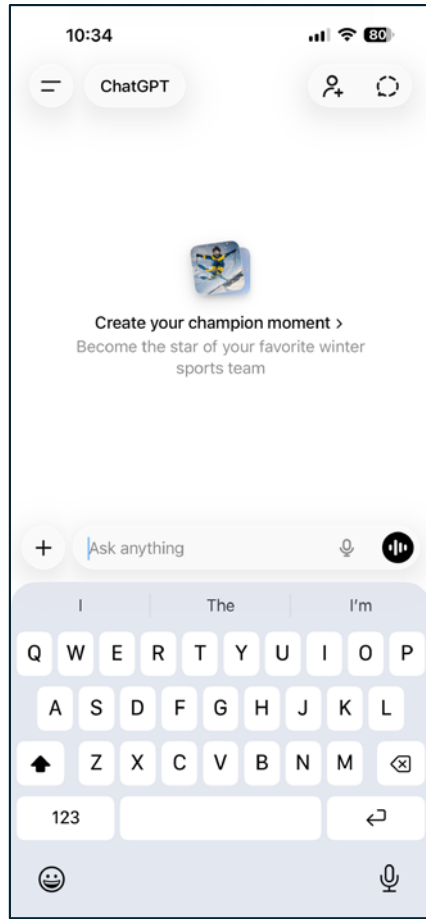


ChatGPT App on MacOS

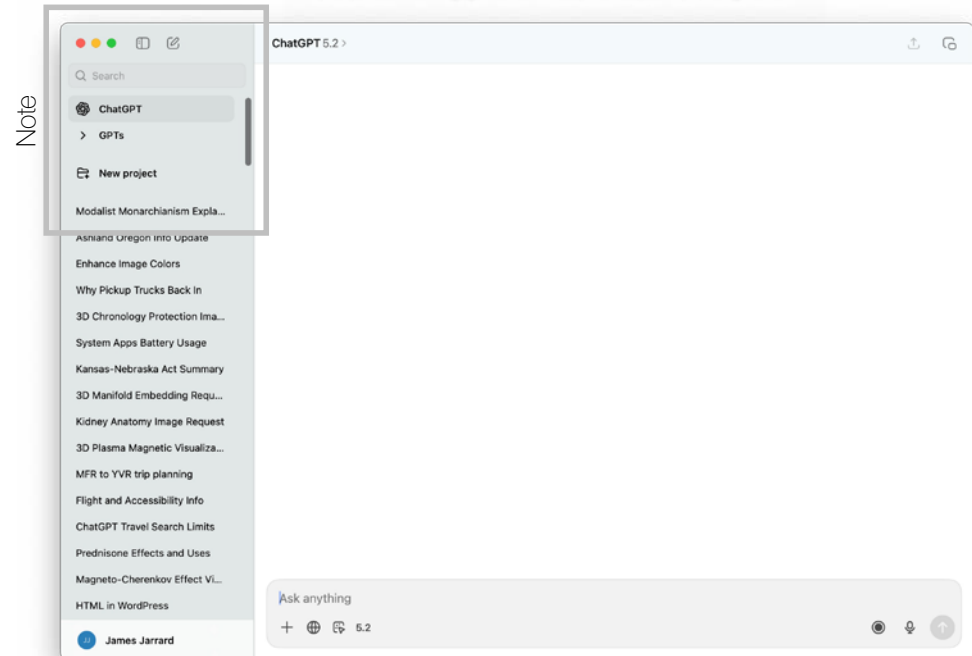




ChatGPT on iPhone

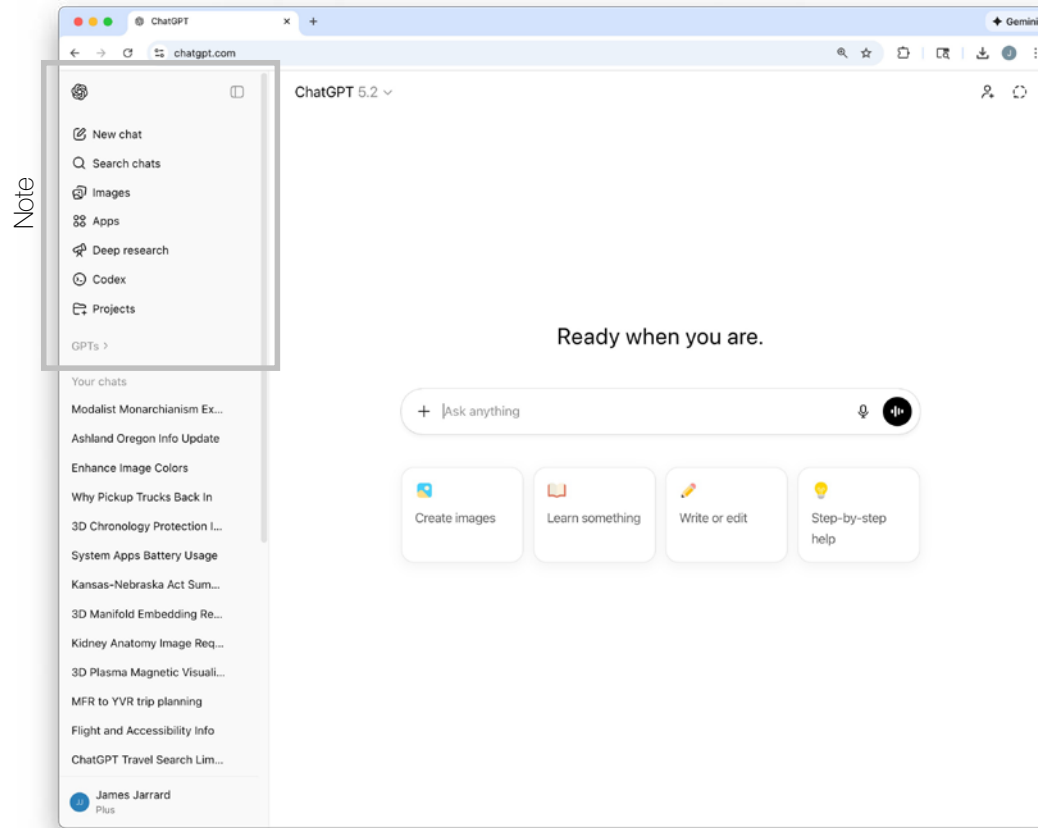


ChatGPT App on Macintosh Computer





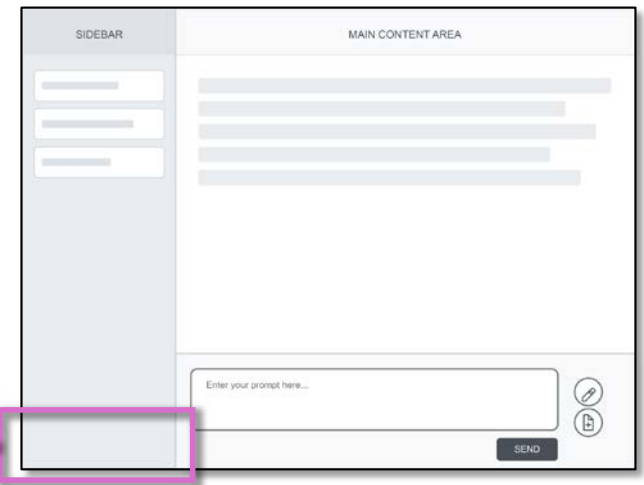
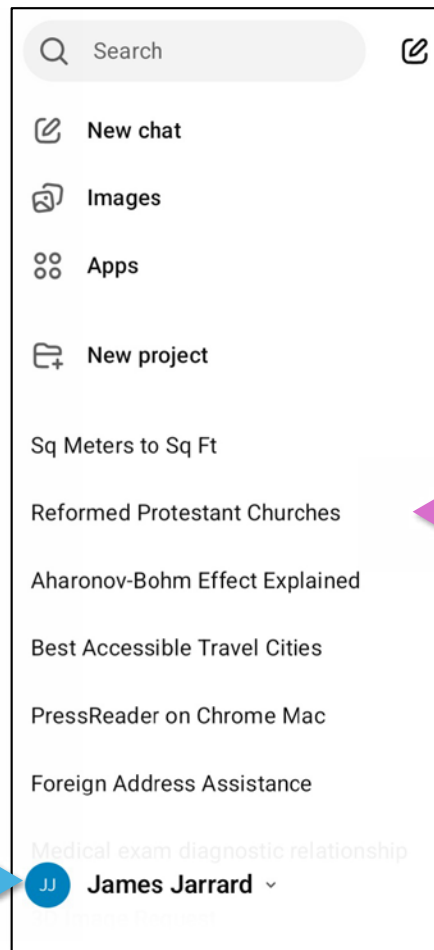
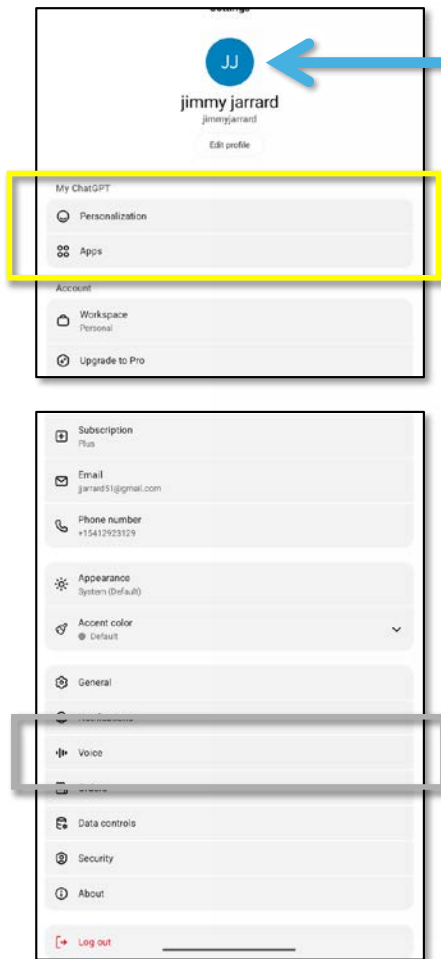
ChatGPT in Chrome Browser (on MacOS)



Between the various “platforms” (MacOS, Windows, mobile - iPhone, Android), there can be a lack of consistency in menu structures and individual menu items.

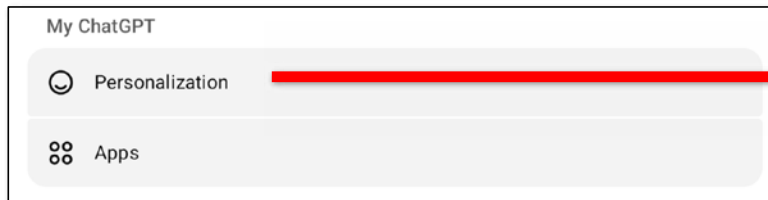
Jump to Prompts?





ChatGPT Settings

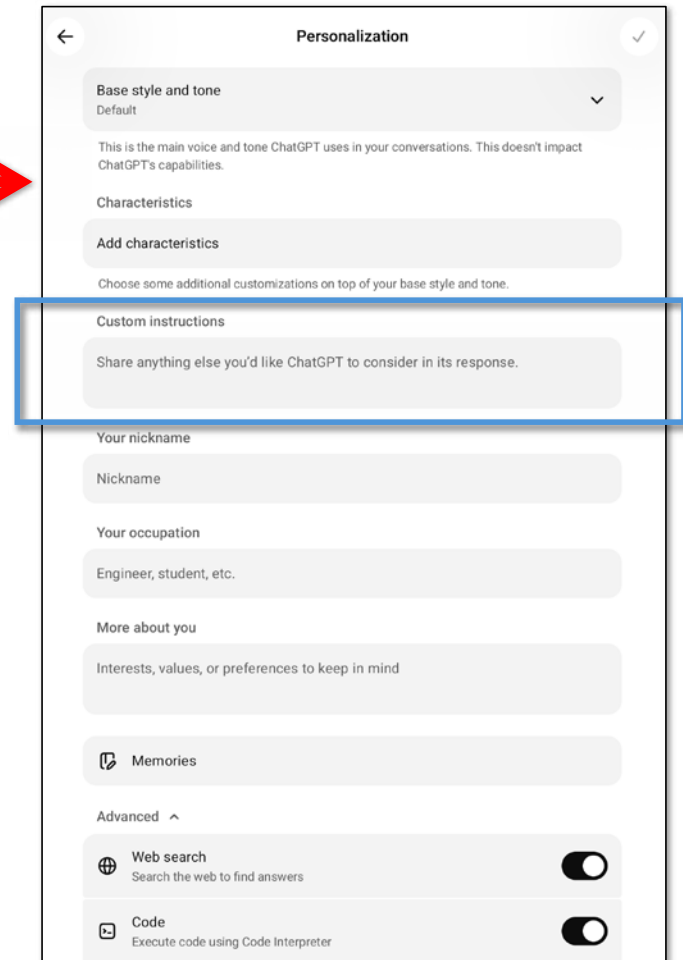
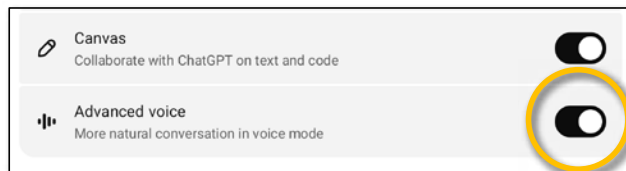




Personalization

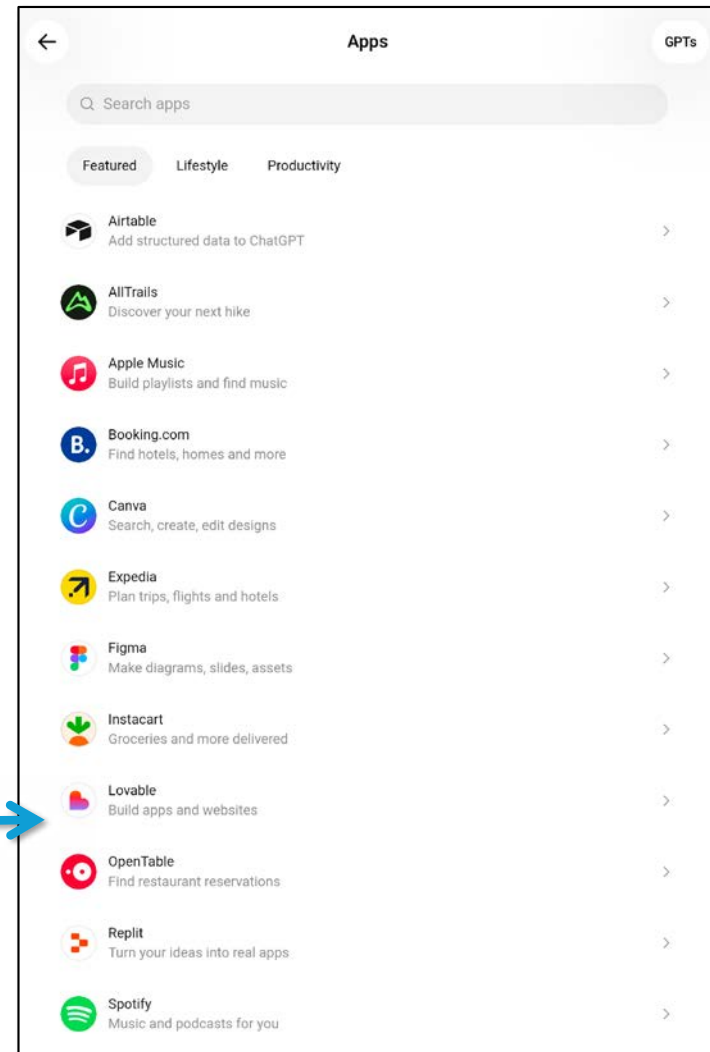
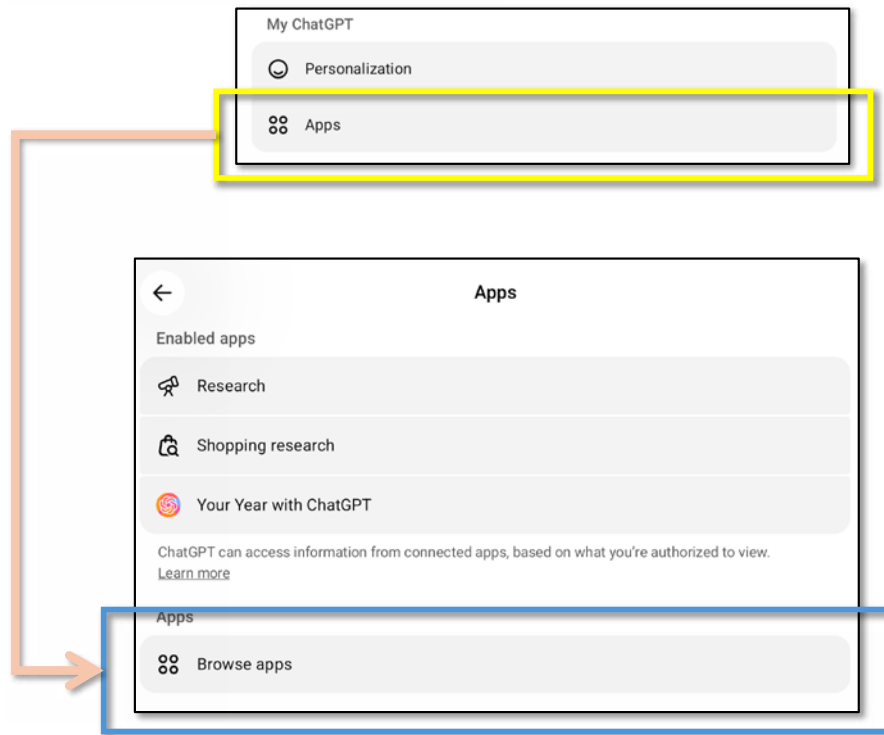
Apps / Agents

Voice / Vocalization



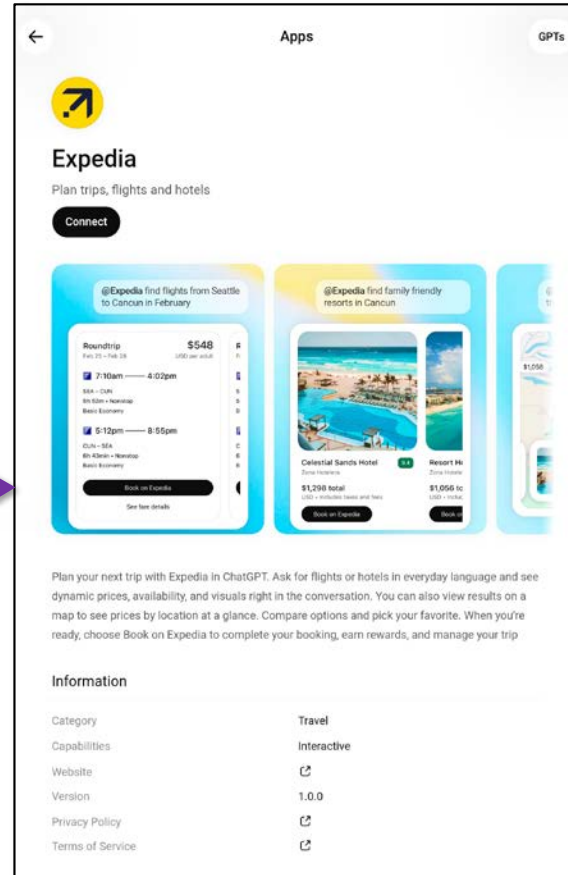
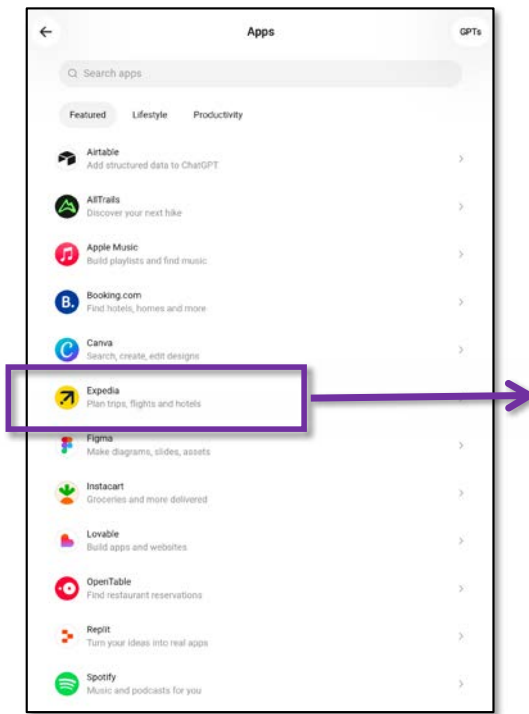
Apps / Agents

OpenAI Apps, Agents and Extensions are not available in all platforms

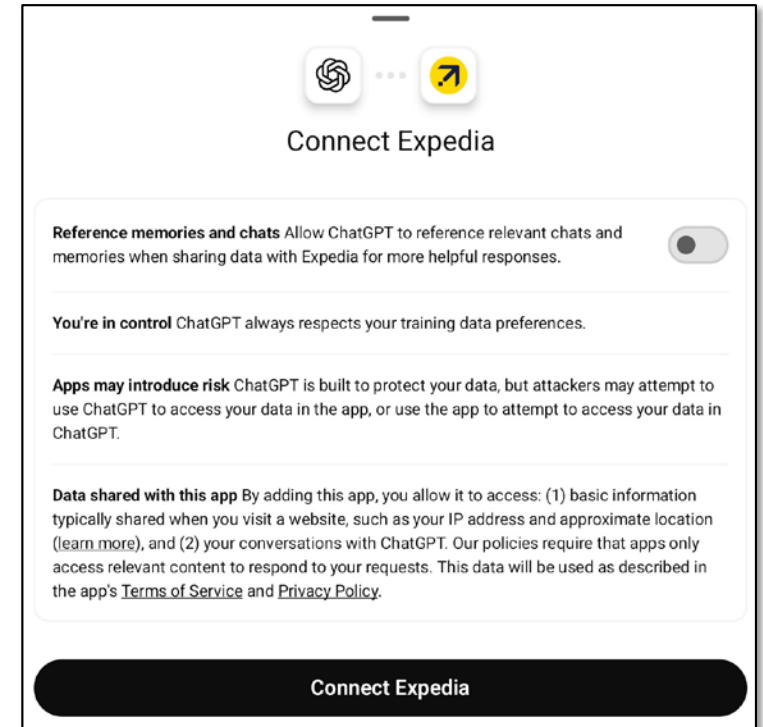


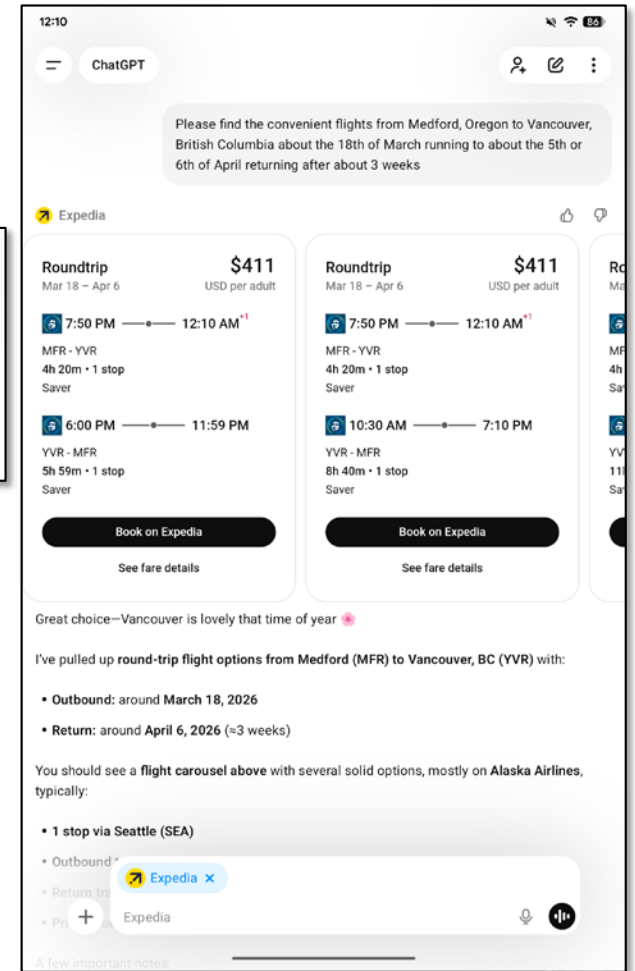
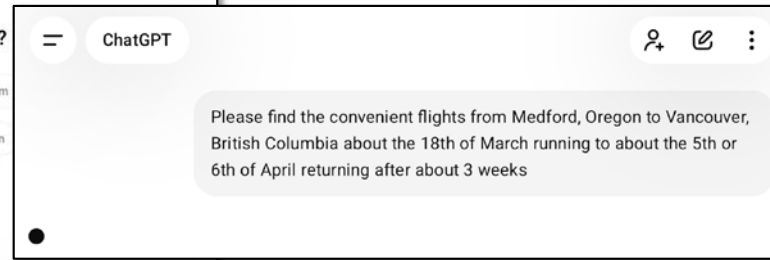
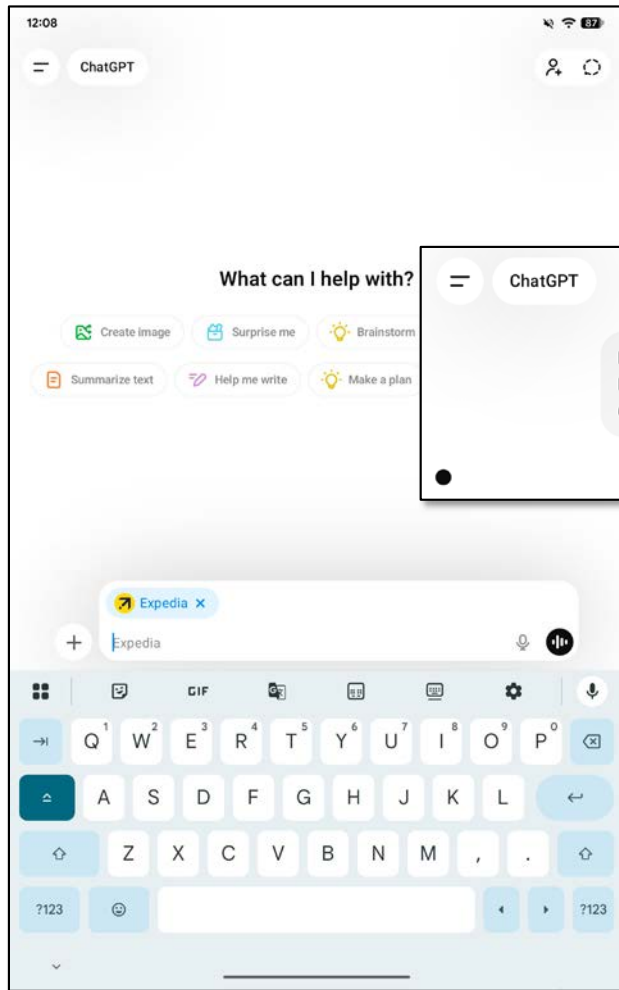


OpenAI Apps, Agents and Extensions are not available in all platforms



Apps / Agents







A Science Behind Effective 'Prompts'

Role / A.I.s Expertise

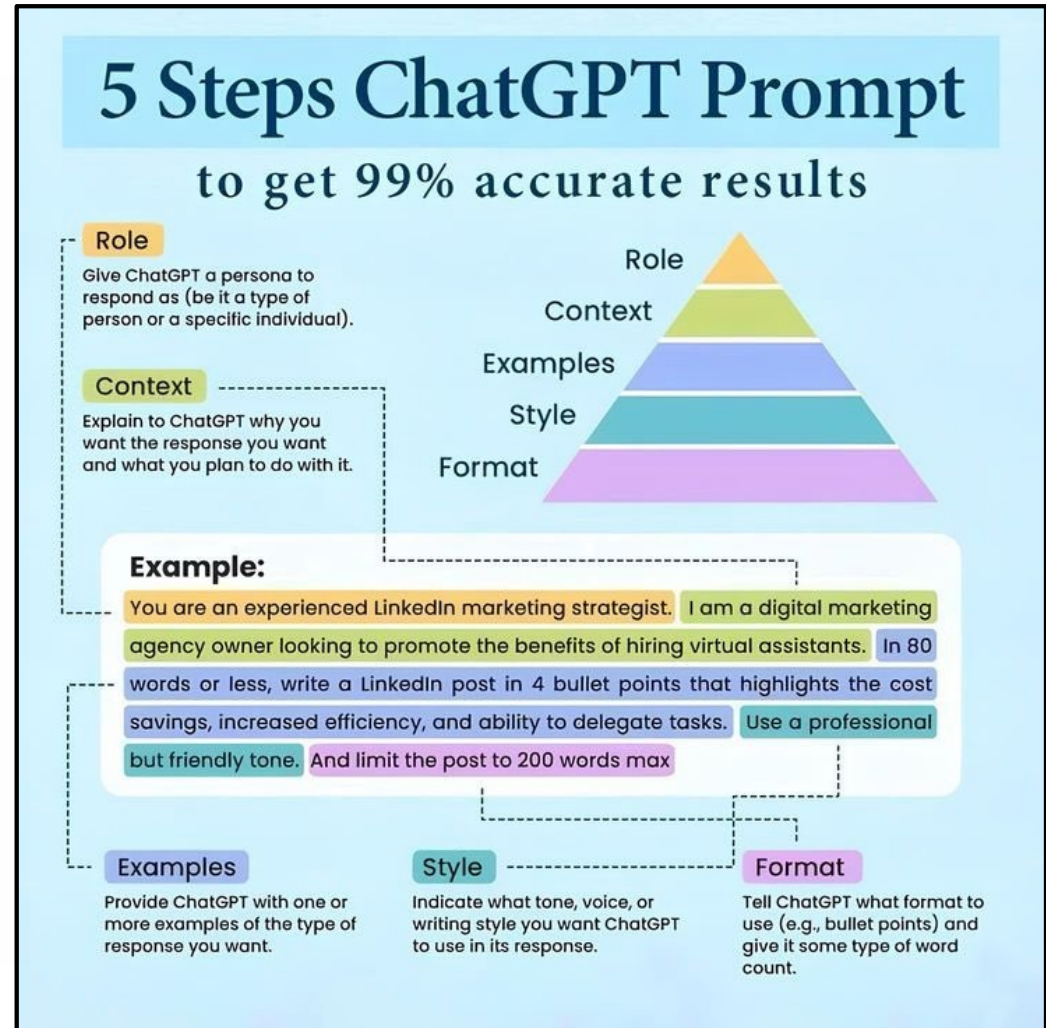
Context

(+) *Prompt*

Examples

Style

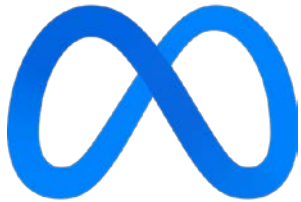
Format



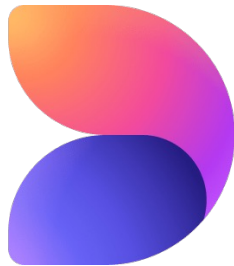
Copy and Editing Prompts / A.I. Software Demonstrated



Adobe Firefly (graphics only - multiple models)

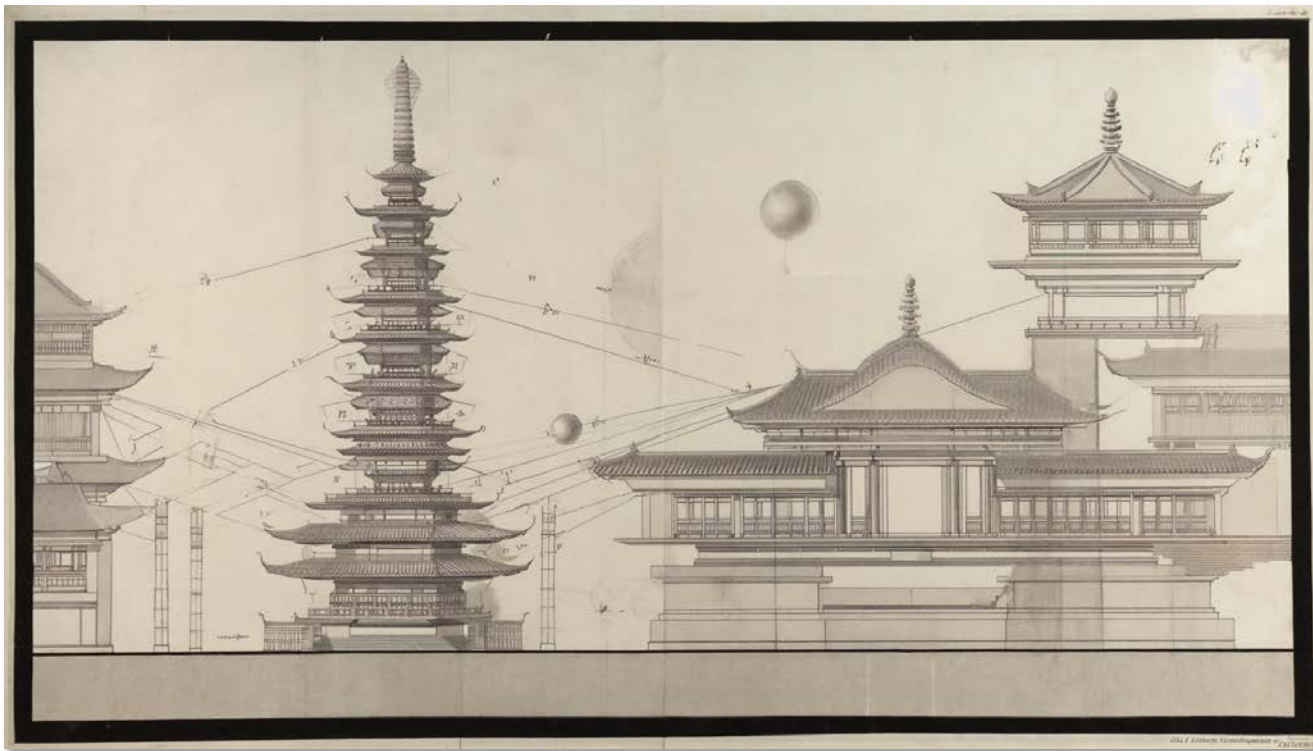


Meta AI



Microsoft Designer

Copy and Editing Prompts

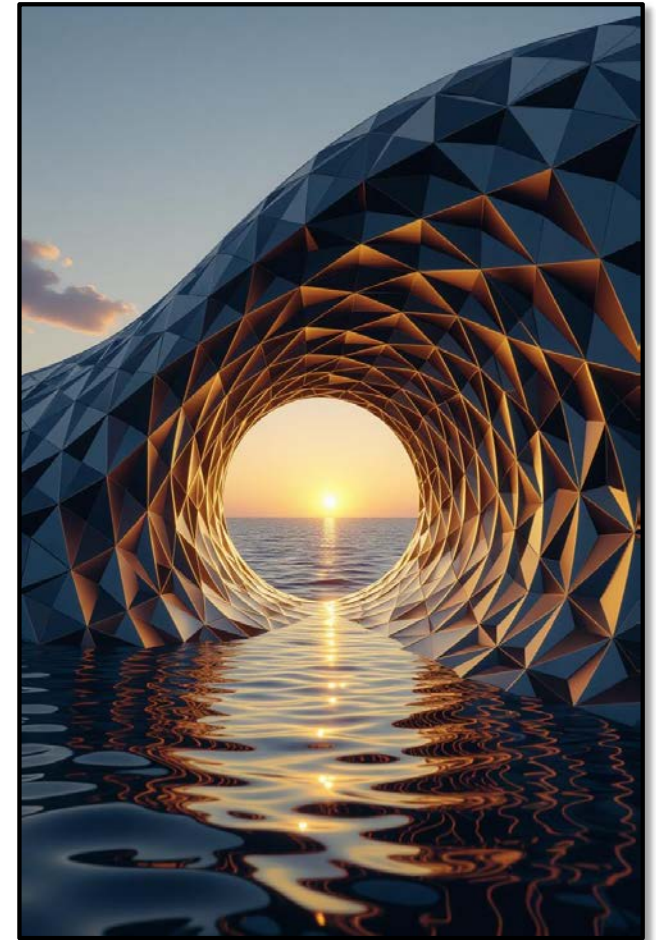


Perspective in Paintings

Copy and Editing Prompts

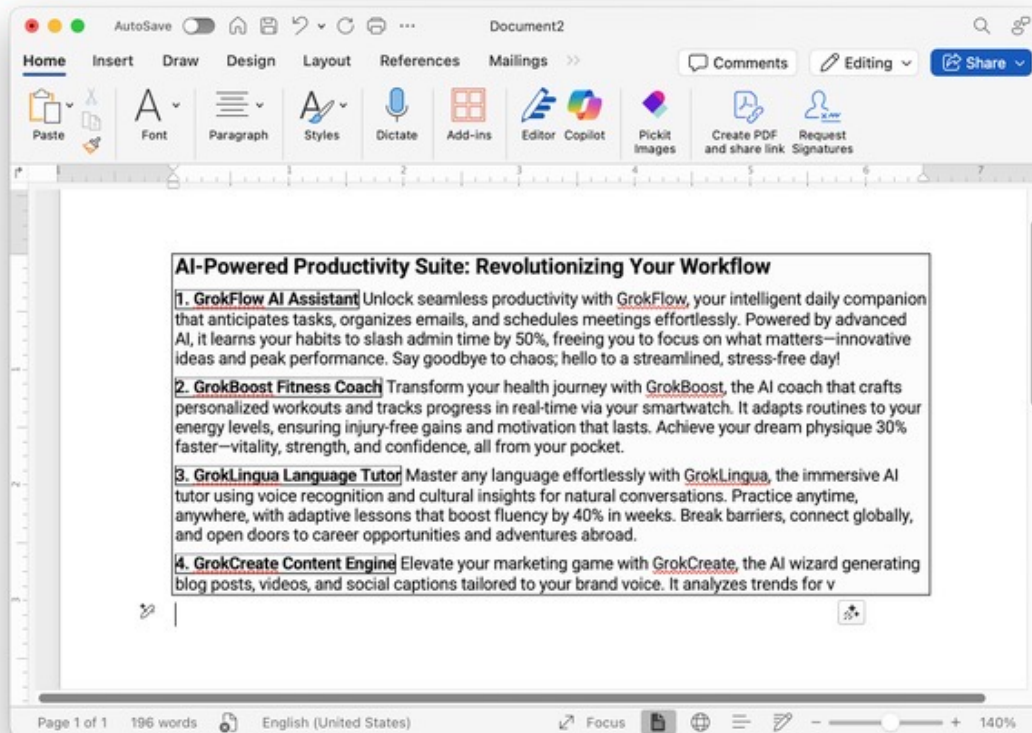
Possible Prompts in A.I.
Modify to Specific Needs

Prompt Title	Prompt
Market Analysis	Act as a market research analyst. Provide a detailed SWOT analysis for a new [product type] entering the [target market]. Include a competitive landscape and key market trends.
Marketing Strategy	Act as a digital marketing expert. Create a three-month social media content calendar for a [type of company] targeting [target audience]. Focus on increasing engagement and brand awareness.
Sales Pitch	Act as a sales professional. Draft a compelling sales email template to a new prospect in the [industry] sector. The goal is to schedule a 15-minute discovery call. Use a persuasive and concise tone.
Brand Messaging	Act as a brand consultant. Develop a unique value proposition and three core brand messaging pillars for a new [company type].
SEO Content Plan	Act as an SEO specialist. Generate a list of 10 high-volume, low-competition keywords related to [topic]. Create an outline for a 1,500-word blog post for one of the keywords.
Email Campaign	Act as a copywriter. Write a three-part email nurture sequence for new email subscribers. The goal is to introduce them to the brand and encourage a first purchase.
Product Description	Act as a product manager. Write 10 compelling product descriptions for a new line of [product]. Use a descriptive and benefit-driven tone.
Customer Persona	Act as a business strategist. Create a detailed customer persona for a [company type] selling [product/service]. Include demographics, pain points, motivations, and a 'day in the life' scenario.

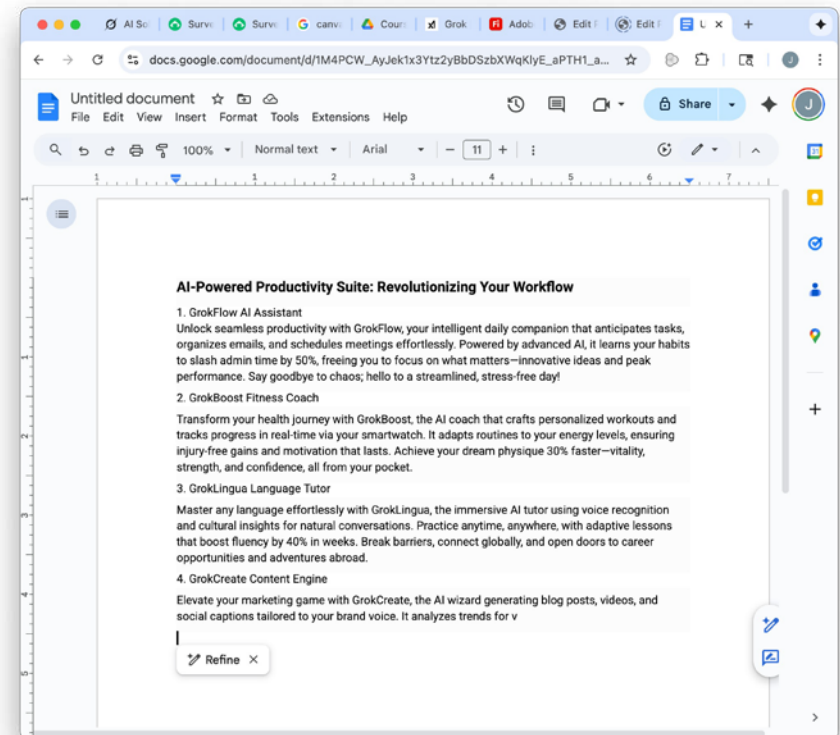


Text Copied to:

Microsoft Word



Google Docs



Copy and Editing Prompts

Mathematical Forms Reference Table

Form	Conceptual Description	Mathematical Representation	Example Qualifiers for AI Prompts
Mandelbulb	3D fractal infinity, like quantum foam bubbling into multiverses—mental recursion visualized.	$z(n+1) = z(n)^8 + c$ (triplex power: magnitude and angle in 3D)	Iteration depth, power exponent, color gradient, zoom level
Lorenz Attractor	Chaotic butterfly wings of uncertainty, manifesting quantum-sensitive paths in thought or fate.	$dx/dt = \sigma(y - x), dy/dt = x(\rho - z) - y, dz/dt = xy - \beta z$	Parameters (σ, ρ, β), trajectory length, color by velocity, initial conditions
Hydrogen Atom Orbital	Ethereal probability clouds of electrons, quantum manifestations of unseen atomic dances.	$\psi(n,l,m) = R(n,l)(r) Y(l,m)(\theta, \phi)$ from Schrödinger equation	Quantum numbers (n, l, m), isosurface level, color by phase, opacity
Calabi-Yau Manifold (Proj.)	Hidden dimensions unfolding, a quantum string theory vision of curled realities in 3D space.	Ricci-flat: Approximate proj. $x=\cos(u)\cos(v), y=\sin(u)\sin(v), z=\sin(w)$	Dimension slice, folding complexity, color mapping, rotation
Sierpinski Tetrahedron	Infinite self-similar voids, mental constructs of quantum superposition collapsing hierarchies.	Iterative: Divide tetrahedron into 4 smaller, remove center; repeat with scale $1/2$	Recursion levels, base size, color per level, transparency
Rössler Attractor	Spiraling chaos streams, evoking quantum flows of consciousness through nonlinear time.	$dx/dt = -y - z, dy/dt = x + a y, dz/dt = b + z(x - c)$	Parameters (a, b, c), time steps, line thickness, phase color



ChatGPT: What to Know (Today)

- Models are strong
- Products are unfinished
- “Agents” = multi-step prompting, not autonomy
- “Apps” mean different things on mobile vs desktop
- Sora video = experimental, often not downloadable

Bottom line:

Capabilities are ahead of workflows.

Treat new features as preview, not production.

