

Think Smart, Prompt Smarter

A Guide to Modern AI



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Aug 1, 2025

The Instructor



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Came to SG on Tech.Pass in 2022 and made SG his home

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Course Objectives

Course Format

- This session – theoretical
- 1 day session - practical

Focus on

- teaching insights and key traits of an AI-ready mindset
- building intuition by outlining key examples, and the way to think
- compare & contrast different concepts

The course is **interactive** – the value of the course is the ability to ask questions and have them answered.

Disclaimer: the material in this course has been collected from various sources, some of which may not be properly quoted.

How to Get the Most from This Course

- **Preview & Skim** - Read each slide once end-to-end; note any prompt patterns that are new to you.
- **Hands-On Replication** - Copy every demo prompt into your favourite LLM and observe variations.
- **Iterate & Experiment**
 - For each technique (zero-shot, few-shot, CoT...), create three fresh prompts of your own.
 - Tweak wording, add constraints, change roles—see how output shifts.
- **Prompt Journal** - Log successes, failures, and “aha!” moments; this becomes your personal playbook.
- **Peer Exchange** - Swap toughest prompts with a classmate and compare strategies.
- **Goal:** By course end you’ll have a tested toolbox—and the habit of continual experimentation that top prompt engineers rely on.

Imagination Fuels Prompt Mastery

- **Core insight:** The real productivity ceiling isn't the model's power—it's our creative range.
- **Barrier:** Limited imagination → narrow, repetitive prompts → ordinary output.
- **Unlock it:**
 - Treat the chatbot as a co-inventor instead of a search box.
 - Regularly pose problems in new domains (coding, policy, marketing, life hacks).
 - Reflect on surprising responses to stretch your mental prompt library.
- **Take-away:** Skill grows in proportion to how often you push the envelope with novel, ambitious asks.



Agenda

01 **Motivation**

02 AI + GenAI + LLM

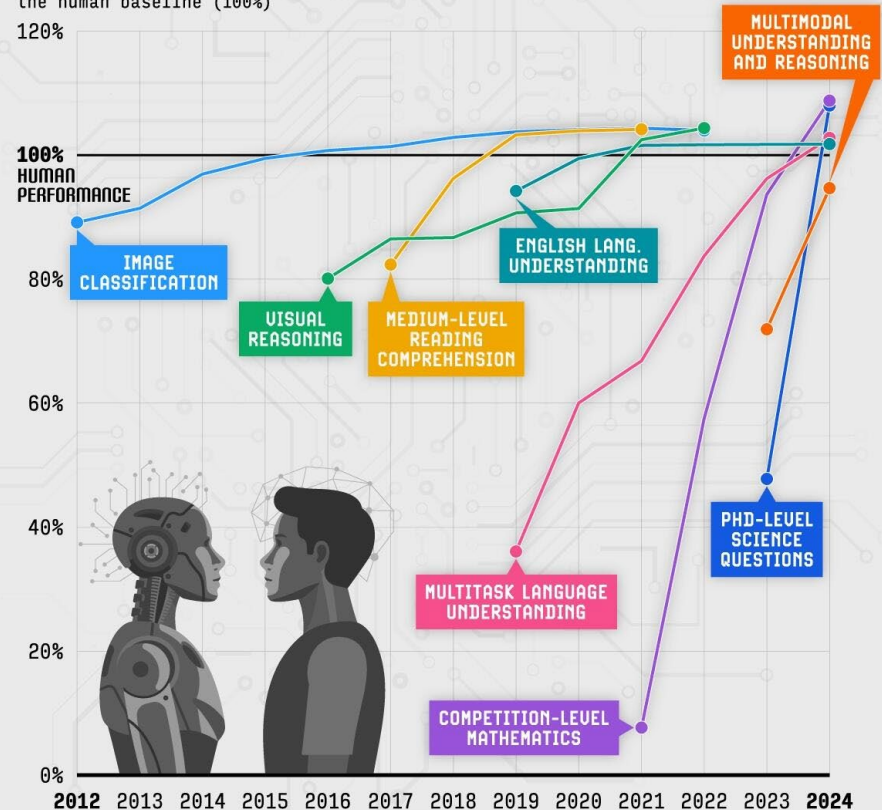
03 Apps Used in the Course

04 Mental Models

05 Prompt Engineering

AI VS. HUMAN PERFORMANCE IN TECHNICAL TASKS

Performance relative to the human baseline (100%)
120%



VISUAL CAPITALIST

COLLABORATORS RESEARCH + WRITING Niccolo Conte | ART DIRECTION + DESIGN Sabrina Lam

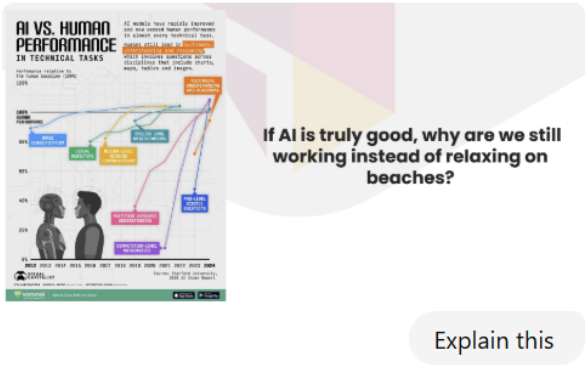
Source: Stanford University, 2025 AI Index Report

voronoi BY VISUAL CAPITALIST | Where Data Tells the Story

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GET IT ON Google Play

If AI is truly good, why are we still working instead of relaxing on beaches?



Explain this

Thought for 22 seconds >

1. What the infographic actually shows

Signal	Meaning	Take-away
Y-axis (Performance % of human baseline)	100%= average skilled human on that benchmark.	Anything above 100% means the best AI systems out-perform humans for that very narrow, well-defined task.
Coloured lines	Different benchmark families (image-net classification, visual reasoning, math competitions, etc.) plotted from 2012-2024.	The steep vertical jumps in 2022-2024 reflect the arrival of large multimodal transformers (e.g., GPT-4o, Gemini 1.5 Pro, Claude 3).
Orange annotation "Multimodal understanding & reasoning"	Still the lone area where humans keep a slim lead (charts, maps, mixed modalities).	Complex, cross-disciplinary reasoning remains a frontier, but the gap is narrowing fast (o1 scored 78% vs. human 82.6% on MMMU in 2024).

If AI is truly good, why are we still working instead of relaxing on beaches?

Benchmarks do not measure real-world problems

AI IQ

Sample problem from the ZeroBench test

Answer the question written in the shape of a star among the mess of letters



Source: ZeroBench

[solve this](#)

Thought for 9m 22s >

Answer: 45

When you pick out the red letters that lie exactly along the five straight edges of the star hidden in the jumble, they spell the sentence:

WHAT IS NINE TIMES FIVE

Evaluating the question gives $9 \times 5 = 45$.

Benchmarks do not measure real-world problems

Benchmarks are gamed

"Nowadays, with a lot of money resting on performance on benchmarks, it becomes very tempting for Big Tech companies to create training data that 'teaches to the test,' and then the benchmarks tend to lose even more validity," Marcus, who has criticized areas of the AI industry he sees as overhyped, told BI.

Benchmarks – Job Roles involve more than just answering multiple-choice questions

1. **Standardized Tests per se not predictive of job performance**
2. **Putting the Bar to the Test: An Examination of the Predictive Validity of Bar Exam Outcomes on Lawyering Effectiveness**

Bar exam scores are only *weakly predictive* of early-career lawyering effectiveness. While there is a statistically significant relationship, the effect is so small that it has little practical value for predicting who will be a successful attorney. The study suggests that the bar exam may not be a strong tool for distinguishing between more and less effective lawyers in practice

Source: <https://journals.sagepub.com/doi/full/10.1177/2755323X241296683>

ChatGPT's results depend on quality of prompts

People struggle to get useful health advice from chatbots

- a paper by researchers at the University of Oxford found that while LLMs could correctly identify relevant conditions 94.9% of the time when directly presented with test scenarios, human participants using LLMs to diagnose the same scenarios identified the correct conditions less than 34.5% of the time.
- Looking back at transcripts, researchers found that **participants both provided incomplete information to the LLMs and the LLMs misinterpreted their prompts.**
- Source: <https://venturebeat.com/ai/just-add-humans-oxford-medical-study-underscores-the-missing-link-in-chatbot-testing/>

AI In Aviation – When Automation Dependency Leads to disaster

Flight	Cause	Pilots' response
Air France Flight 447 (2009) – All 228 people died	Icing obstructed pitot tubes—speed sensors—triggered autopilot disconnection at high altitude.	Pilots were unprepared for manual flight at cruise altitude after losing reliable speed data. Instead of recovering from a stall, they made incorrect inputs, keeping the nose up despite stall warnings.
Boeing 737 MAX Crashes: Lion Air Flight 610 (2018) & Ethiopian Airlines Flight 302 (2019) – All 346 people died	Faulty angle-of-attack (AOA) sensor erroneously activated the MCAS automated control system, forcing the aircraft's nose down repeatedly.	Pilots struggled to regain control; unfamiliarity with the new automation led them to fight the system rather than disconnect it.
Jeju Air Flight 2216 (2024) – All 179 died	Bird Strike	Pilots switched off fully working engine, instead of the one damaged

AI In Aviation – When Automation Dependency Leads to disaster – Root Cause

- 1. Automation Dependency Erodes Core Skills:** Excessive trust in AI and automated systems leads to skill degradation, especially for rare, unexpected manual interventions.
- 2. Sensor Failures Can Cascade:** Faulty inputs to AI-controlled systems may produce misleading or dangerous automated actions—requiring immediate, skilled human override.
- 3. Training for Manual Override is Essential:** Regular and robust training must ensure operators are ready to take control from automated systems under stress.

Super Data Science Podcast – 907: Neuroscience, AI and the Limitations of LLMs, with Dr. Zohar Bronfman

- Limitations of Large Language Models (LLMs): Dr. Zohar Bronfman argues that current LLMs fall short of artificial general intelligence (AGI) due to their lack of true domain-general learning and unified value systems. **Unlike humans, LLMs cannot transfer knowledge across different domains or understand deeper "why" questions.**
- Intelligence and Consciousness: Bronfman proposes that true intelligence requires the ability to solve complex problems across different domains, with a unified value system. He highlights that **current AI systems are excellent at domain-specific tasks but lack the ability to learn and apply knowledge flexibly across different contexts.**

Super Data Science Podcast – 907: Neuroscience, AI and the Limitations of LLMs, with Dr. Zohar Bronfman

- Animal Intelligence as a Benchmark: The podcast explores fascinating examples of animal intelligence, such as bumblebees' **ability to transfer knowledge between senses (e.g., recognizing object shapes through touch and sight)**, which current AI systems cannot replicate.
- Creativity and AI: Bronfman **distinguishes between combinatorial creativity (recombining existing ideas) and transformational creativity (creating fundamentally new perspectives)**, arguing that LLMs are limited to the former and cannot achieve the latter.

Recommended Reading for AI Snakeoil

<https://www.cs.princeton.edu/~arvindn/talks/MIT-STS-AI-snakeoil.pdf>



Agenda

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- 01 Motivation
 - 02 **AI + GenAI + LLM**
 - 03 Apps Used in the Course
 - 04 Mental Models
 - 05 Prompt Engineering

What is AI?

- A) Artificial Intelligence
- B) Augmented Intelligence
- C) Accelerated Intelligence
- D) All of Above
- E) None of Above

What is AI?

“Artificial intelligence leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind

IBM

“AI isn't just designed to mimic the capabilities of humans, but in many cases, AI is designed to do our jobs better than we can

What is AI?

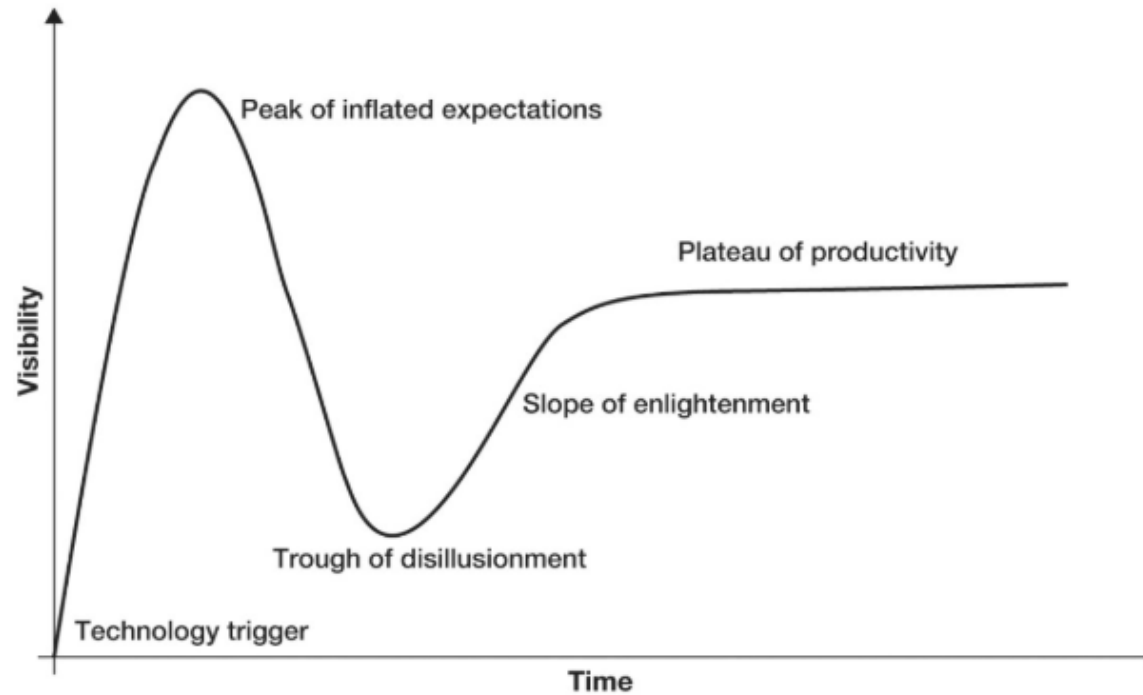
“AI is neither artificial nor intelligent. It is made from natural resources, and it is people who are performing the tasks to make the systems work. And it’s not intelligent in any kind of human intelligence way. It’s **not able** to discern things without extensive human training, and it has a completely different statistical logic for how meaning is made.”

— Kate Crawford

Gartner Hype Cycle

FIGURE 7-2

Gartner hype cycle



Source: Jeremy Kemp/Gartner Research, 2007.

AI Taxonomy (1/2)

1. GenAI

2. Symbolic & Classic AI (Knowledge Representation, Automated reasoning, Planning & Scheduling)

3. Machine Learning (Supervised / Unsupervised / Reinforcement / Deep Learning)

4. Computer Vision (Image Classification, Object Detection, 3D, Video Understanding)

5. Natural Language & Speech

AI Taxonomy (2/2)

6. Robotics
7. Predictive Modeling & Analytics (Time series forecasting, anomaly & fraud detection, decision support)
8. Multi-agent & Collective AI (Swarm intelligence)
9. Trust, Ethics & Governance (Fairness, Bias & Responsible AI, Explainability & Interpretability, Alignment, Safety & Regulation)
10. Frontier & Enabling tech (Privacy-preserving learning, quantum computing)

Human Capabilities AI cannot ever replace (EPOCH)

- 1. Empathy and emotional intelligence** which foster understanding, teamwork, and a collaborative work environment.
- 2. Presence, networking, and connectedness**, which describe capabilities humans use when they are involved in face-to-face interactions and physical task
- 3. Opinion, judgment, and ethics**, which encompass critical thinking, information synthesis, and decision-making.
- 4. Creativity and imagination**, which include curiosity, improvisation, and humor.
- 5. Hope, vision, and leadership**, which comprise initiative, grit, perseverance, and sense of purpose.

The Dynamics of Power

New technologies have twice in recent decades altered the nature of power in society. First, the internet and social media gave rise to the new-power era; now, the AI revolution is ushering in the “autosapien” era.

	Era:		
	Old-power	New-power	Autosapien
How ideas and information flow	Top-down	Through networks	Funneled
How expertise works	We trust experts	We trust the wisdom of the crowd	We trust AI systems
How value is created	Economies of scale	Economies of networks	Economies of ideas
How we interact with technology	Offline	Online and offline	In-line (tech runs through our bodies)
How governance works	Decisions are mandated	Decisions are crowdsourced	Decisions are encoded

HBR

The Dynamics of Power

AI is changing the cost and availability of expertise:

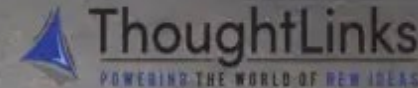
- The overall body of expertise in the world is constantly expanding, making it harder to stay at the leading edge in every relevant area. For example, biotech companies are increasingly leveraging AI for drug discovery
- **The cost of accessing expertise is constantly falling.**

Most roles redefined

AI's Projected Impact on Banking Processes by 2030

Business / Function	Sampled Processes	% Redefined by AI
Global Markets – Sales & Trading	360	32%
Global Markets – Middle Office	120	48%
Commercial Banking	420	49%
Consumer Banking	760	42%
Wealth Management	210	42%
Investment Banking	260	33%
Payments & Cash Management	110	52%
Markets Operations (Post-Trade)	340	47%
Banking & Shared Services Ops	640	48%
Risk and Compliance	400	36%
Finance & Accounting	480	44%
Technology, Engineering & Infra	480	55%
Other Corporate Functions	340	39%
Total	4,920	~ 44%

2030 percentages are modeled from sampling ~4,920 processes using a proprietary ThoughtLinks framework, including ThoughtLinks' projections and simple average highlights breadth of impact. 'Redefined' reflects substantial AI-enabled, process-level change via automation, resequencing, elimination, or redesign — and not necessarily implied for every task.



Cost Savings by Industry due to AI

Cost Savings by Industry

Industry	Average Cost Reduction	Time Savings
Customer Support	70-80%	90% faster resolution
Content Marketing	60-70%	5x faster content creation
Legal Research	50-60%	80% faster document review
Software Development	40-50%	3x faster debugging

AI First company

- being "AI-first" means using AI to accelerate customer outcomes, decision-making, and feature development. The focus is on moving faster through work processes rather than simply reducing workload, with an emphasis on reinvesting productivity gains into growth.
- McKinsey has reported that AI tools could automate up to 60-70% of employees' time in functions like data analysis, writing, and research. That means tasks once reserved for senior analysts, strategists, or specialized consultants are now accessible to individual contributors armed with the right prompts.

Where AI provides value

AI increases the speed and quality of decisions

AI First Mindset – Ask the right questions

"The quality of your life is determined by the quality of the questions you ask."

-Tony Robbins

"Judge a man by his questions rather than by his answers."

–Voltaire

"The important and difficult job is never to find the right answers, it is to find the right question."

-Peter Drucker

AI First Mindset – The key traits – Personal Core

- 1. Growth Mindset** – potential → development → iteration; embrace challenges & feedback
- 2. Curiosity & Question-Crafting** – ask “why / what if?” before “how”
- 3. Self-Direction & Agency** – spot problems, dive in, own the solution
- 4. Grit & Perseverance** – persist through setbacks with a clear objective
- 5. Resilience & Adaptability** – neuro-plastic, flexible in fast-changing environments

AI First Mindset – The key traits – Thinking & Decision Framework

- 1. Critical Judgment** – decide what to create, evaluate quality, understand context
- 2. Lean / Data-Driven Experimentation** – build → measure → learn; MVP first, cut waste
- 3. Strategic Problem-Framing** – define root issues, ask the right questions, set AI up for success
- 4. Automation Sense** – know when to use AI, what to automate, and what needs the human touch
- 5. Ethical & Responsible Choices** – bias awareness, governance, value-aligned decisions

AI First Mindset – The key traits – Collaborative Leadership

- 1. Customer-Centric Innovation** – solve real needs, integrate feedback loops
- 2. Collaboration & Emotional Intelligence** – share, co-create, communicate with empathy
- 3. Initiative & Courage to Experiment** – test fresh ideas, accept calculated risk
- 4. Scalability Mindset** – design for speed, repeatability, and impact
- 5. Continuous Learning Culture** – track results, iterate, keep up with the latest AI trends

Generative AI (GenAI)

Generative AI is a type of AI that studies many examples—pictures, words, sounds—and then makes brand-new content that looks or sounds similar but is not an exact copy.

GenAI is Multimodal

Modality	What it can make
Text	new articles • summaries • code • translations
Images	fresh pictures • photo edits • style changes
Audio	lifelike voices • sound effects • original music
Video / 3-D	short clips • scene edits • virtual worlds

GenAI is Multimodal

Key idea:

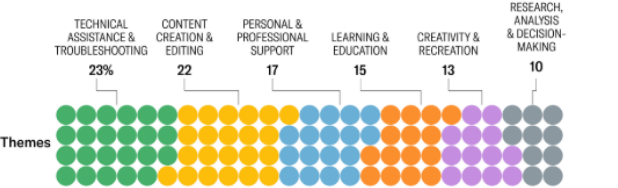
One single model understands and mixes several kinds of data (words, pictures, sound, video) so you can **ask in one format and get answers in another**—e.g., “Describe this photo in French” or “Turn my sketch into a 3-D animation.”

Why it matters

- Richer user experiences (chat + image upload, voice replies)
- Faster creative workflows—no tool-switching
- Opens new products: smart tutors, virtual designers, adaptive media

How People Are Using GenAI

Have people found ways for generative AI to help lighten their workloads, increase their productivity, or think through problems in new ways? To understand how individuals are using the technology, researchers mined web forums like Quora and Reddit, filtering through tens of thousands of posts to identify 100 different use-case categories, which they then organized into six themes.



Categories		
1 Generating ideas	36 Critique & counterargument	71 With MS Office apps
2 Therapy/companionship	37 Knowledge checks	72 Understanding movie plots
3 Specific search	38 Coding for amateurs	73 Coding for a basic video game
4 Editing text	39 Meeting summaries	74 Tracking medical symptoms
5 Exploring topics of interest	40 Cleaning up notes	75 Healthier living
6 Fun & nonsense	41 Explaining legalese	76 Preparing for meetings
7 Troubleshooting	42 Spotting logical fallacies	77 Explaining idioms
8 Enhanced learning	43 Creating a holiday itinerary	78 UX/user story writing
9 Personalized learning	44 Editing a legal document	79 Suggesting code libraries
10 General advice	45 Business advice	80 Writing poems
11 Drafting emails	46 Replying to emails	81 Work buddy
12 Simple explainers	47 Generating code (pros)	82 Editing video transcript
13 Writing/editing CV/résumé	48 Getting past writer's block	83 Motivating yourself
14 Excel formulas	49 Generating a lesson plan	84 Packing for travel
15 Adjusting tone of email	50 Rubber ducking (debugging code)	85 Sampling data
16 Evaluating copy	51 Negotiating a deal	86 Technical use of software
17 Enhanced decision-making	52 Fact-checking	87 For people with ADHD
18 Language translation	53 Career advice	88 Ad/marketing copy
19 Improving code (pros)	54 Practicing difficult conversations	89 Special needs education
20 Drafting a document	55 Seeing blind spots	90 Spotting anomalies
21 Reconciling personal disputes	56 Data entry	91 Building a business plan
22 Summarizing content	57 Legal research	92 Refining prompts
23 Making a complaint	58 Writing job postings	93 For entrepreneurs/startups
24 Recommending movies, books, etc.	59 Strengthening an argument	94 Building a website/app
25 Cooking with what you have	60 Jumping to the useful info	95 Writing blog posts
26 Generating appraisals	61 Generating video	96 Writing a funding proposal
27 Creativity	62 Safe space to ask	97 Writing a press release
28 Medical advice	63 Interpreting song lyrics	98 Editing digital images
29 Generating a legal document	64 Dungeons & Dragons	99 Planning workouts
30 Fixing bugs in code	65 Generating relevant images	100 Project management
31 Drafting a formal letter	66 Data manipulation	
32 Writing & editing a cover letter	67 Homework	
33 Personalized kid's story	68 Writing social media copy	
34 Explaining technical documents	69 Translating code (pros)	
35 Preparing for interviews	70 Realistic web copy	

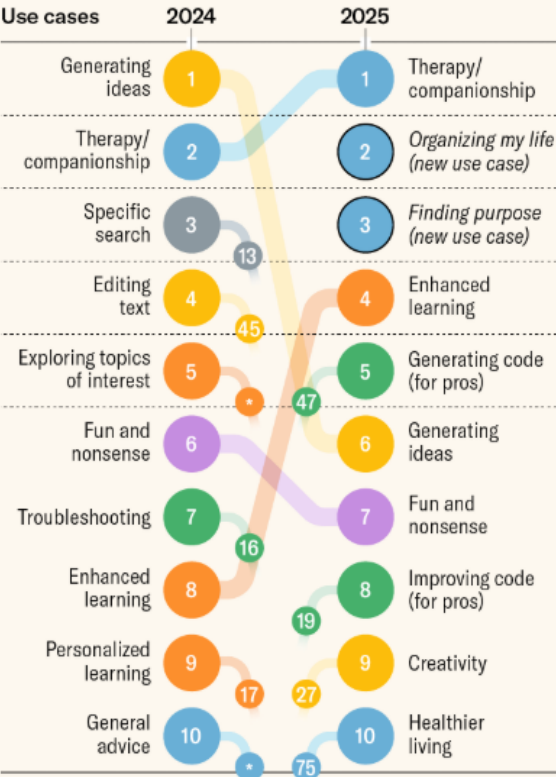
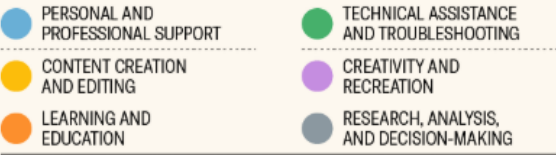
Source: Filtered HBR

How are people using GenAI

Top 10 Gen AI Use Cases

The top 10 gen AI use cases in 2025 indicate a shift from technical to emotional applications, and in particular, growth in areas such as therapy, personal productivity, and personal development.

Themes



*Did not make list of top 100 in 2025
Source: Filtered.com



Top Use case

What is a Large Language Model (LLM)

- Trained on massive text corpora → learns patterns of human language
- Understands & generates text that reads as if written by a person
- “Large” = billions of parameters, enabling broad, general-purpose language understanding across topics and tasks
- Nobody knows exactly how LLM work
- LLMs are probability machines and non-deterministic ones. They require supervision. They produce inconsistent and non-repeatable responses.

Communicating with LLMs

- **Speak in natural language.** Type a question or instruction and the model answers in kind.
- **No code needed.** Prompts replace programming syntax, setting LLMs apart from traditional software.
- **Clear prompts, better results.** The clarity and detail of your request directly shape the quality of the response.

JO

You

What is a language model?

**ChatGPT**

A language model is a type of artificial intelligence system that is trained to understand and generate human-like text. It learns the structure, grammar, and semantics of a language by processing vast amounts of textual data. The primary goal of a language model is to predict the probability of the next word or sequence of words in a given context.

A decorative graphic on the right side of the slide, consisting of several overlapping, semi-transparent geometric shapes in shades of pink, yellow, and grey, creating a layered, abstract effect.

ChatGPT's definition of an LLM

How to think of an LLM

1. LLM has been trained on all the data in the internet, all books, websites, journals, Wikipedia, code and chats ever
2. An LLM is thus a probabilistic database containing all the knowledge in the world (Note: most knowledge is written).
3. It's a pattern matching engine using semantic search, no detailed understanding
4. These models aren't searching for truth through facts and logical arguments—they're predicting text based on patterns in the vast datasets they're “trained” on. That's not intelligence—and it isn't reasoning. And if their “training” data is itself biased, then we've got real problems.
5. LLMs are primarily optimized to produce responses that are helpful and persuasive, not necessarily accurate.
6. You do not need to understand how the car works to drive a car

How LLM replies to a prompt?

1. **Read your words** - Turns them into numbers it can work with.
2. **Guess the next word** - Checks all words it knows and scores how likely each one is.
3. **Write the best guess** - Picks the word with the highest score (or one of the top few).
4. **Loop** - Adds that word to the text and repeats the guess-and-write cycle until it's done.

It's super-charged auto-complete: always choosing the most likely next word.

How LLM replies to a prompt? Example:

Complete this sentence: "The weather today is..."

Without sampling controls:

1. **Most likely: "sunny" (45% probability)**
2. Also likely: "cloudy" (32% probability)
3. Interesting: "unpredictable" (12% probability)
4. Creative: "painting the sky in watercolors" (0.3% probability)

Notice – this is why chatbots provide average quality - they have been given millions of average / typical responses.

LLM Randomness control – Temperature

Temperature = the creativity thermostat – the higher (>1) the more creative, the lower (close to 0, usually 0.2) the more focused, factual and consistent result.

The Precision Zone (0.1 - 0.3):

- Perfect for tasks where accuracy matters more than creativity. Your AI becomes a careful fact-checker, sticking to what it knows with high confidence.
- When to use: Code generation, technical documentation, factual Q&A, translations, formal reports.

The Conversation Zone (0.7 - 0.9):

- This is where AI feels most human—creative enough to be interesting, controlled enough to stay on track. Most successful AI applications live in this range.
- When to use: General conversation, content creation, customer support, educational content, writing assistance.

The Innovation Zone (1.0 - 1.5):

- Here's where breakthrough ideas happen. The AI becomes willing to make unexpected connections and explore unusual directions.
- When to use: Creative writing, brainstorming, experimental content, artistic projects, problem-solving

LLM Randomness control – Temperature – Example

ChatGPT o3 ▾

Write a single sentence motivational message for entrepreneurs in Singapore starting a new business in 2025.

Produce 3 answers - one with temperature 0.2, one with 1.2 and one with 2.5

Thought for 13 seconds >

Temperature 0.2

Harness Singapore's supportive ecosystem, stay relentlessly focused on genuine customer problems, and your 2025 startup will steadily compound its success.

Temperature 1.2

In Singapore's 2025 crucible of fintech, deep-tech, and green innovation, dare to iterate faster than the skyline rises and your venture will tower above the competition.

Temperature 2.5

Roar into 2025 like a solar-powered dragon skimming the Singapore Strait—fearless, trailblazing, and hell-bent on turning moonshots into Merlion-sized miracles!

LLM Randomness control – Top-p: The Smart Filter

A smart filter that says: "Be creative, but only consider options that make sense in context."

Top-p works by creating a "nucleus" of the most probable tokens whose cumulative probability reaches your threshold. **Think of it as the AI's attention span—you're controlling how many options it considers before making a choice:**

1. Low Top-p (0.1 - 0.3) - The Laser Focus
2. High Top-p (0.8 - 0.95) - The Broad Explorer

LLM Randomness control – Top-p: The Smart Filter – Example

Write a single sentence motivational message for entrepreneurs in Singapore starting a new business in 2025.

Produce answers across two sets of parameters:

1. temperature 0.2, 1.2 or 2.5
2. top-p of 0.1, 0.5 or 0.95

Thought for 9 seconds >

Temperature Variations

- **T = 0.2:** With steady vision and disciplined execution, your 2025 Singapore startup can turn bold ideas into enduring impact.
- **T = 1.2:** Beneath Singapore's vibrant skyline, let your 2025 venture spark fresh possibilities and prove that daring dreams thrive on Lion City grit.
- **T = 2.5:** Leap past the Merlion's roar, fusing tech, heart, and audacity into a 2025 startup that electrifies Southeast Asia's future.

Top-p Variations

- **top-p = 0.1:** In Singapore's fertile entrepreneurial soil, even the smallest well-tended seed can blossom into a mighty enterprise in 2025.
- **top-p = 0.5:** Set your compass to innovation and ride Singapore's dynamic currents—2025 is the tide that will lift your new venture.
- **top-p = 0.95:** Ignite your 2025 Singapore startup with courage and curiosity, and watch opportunities multiply like lights across Marina Bay.

LLM Randomness control – Temperature & Top-p

The Restaurant Analogy:

- Temperature is like your hunger level—how adventurous are you feeling?
- Top-p is like the menu size—how many options do you want to consider?
- High temperature with low top-p: "I'm feeling adventurous, but only show me the chef's top recommendations."
- Low temperature with high top-p: "I'm playing it safe, but I want to see all the safe options."

LLM Randomness control – Top-k: The Vocabulary Limit

It limits the AI to considering only the k most likely next words.

If you set top-k to 10, the AI will only choose from the 10 most probable options, completely ignoring everything else.

Scale:

- Too low (k=1-5): Repetitive and boring
- Too high (k=100+): Chaotic and unpredictable
- Just right (k=20-50): Natural variety with controlled bounds

Example:

- k = 15 – boiler plate text (just essential tools)
- k=50 creative solutions (the entire workshop)

LLM Randomness control – Top-k: The Vocabulary Limit – Example

Write a single sentence motivational message for entrepreneurs in Singapore starting a new business in 2025.

Produce answers across this set of parameters: top-k of 1, 5, 20, 50, 100, 200

Thought for 11 seconds >

Top-k1: In 2025's vibrant Singapore, let your bold idea take flight with disciplined execution, unwavering integrity, and the confidence that the nation's innovation ecosystem is built to lift you higher.

Top-k5: Fuel your 2025 Singapore startup journey by daring greatly, learning quickly, and embracing the city-state's unrivaled blend of capital, talent, and global connectivity.

Top-k20: Launch fearlessly into Singapore 2025, where every obstacle is a hidden runway and relentless curiosity turns city-sized opportunities into world-spanning impact.

Top-k50: In the smart-nation playground of 2025 Singapore, imagine possibilities others dismiss, prototype at lightning speed, and let collaboration propel your venture beyond the equator.

Top-k100: Ride the 2025 Singapore tide of green tech, AI, and borderless finance, trusting that purpose-led grit will convert today's uncertainty into tomorrow's regional dominance.

Top-k200: Spark a movement in 2025 Singapore by fusing audacious vision with compassionate leadership, and watch your nascent startup ripple from a kopi-table sketch to a force rewriting Southeast Asia's future.

LLM Randomness control

1. **"Professional Writer"** (0.4, 0.6, 25) - Polished but engaging content
2. **"Creative Partner"** (0.9, 0.8, 60) - Innovative ideas with good execution
3. **"Fact Checker"** (0.2, 0.3, 15) - Accurate, reliable information
4. **"Brainstorm Buddy"** (1.2, 0.9, 80) - Wild ideas and unexpected connections

Example: "Imagine unconventional ways to promote our nutrition app."

LLM Problems – Hallucinations

Definition — **Hallucination** occurs when an LLM produces fluent yet factually wrong or invented content.

Symptoms

- Factual inaccuracies (contradicting known facts)
- Fabricated references or data
- Internal contradictions
- Omitted key facts leading to distortion

Typical Triggers

- Ultra-niche or low-data prompts
- Questions beyond the model's knowledge cut-off

Mitigation

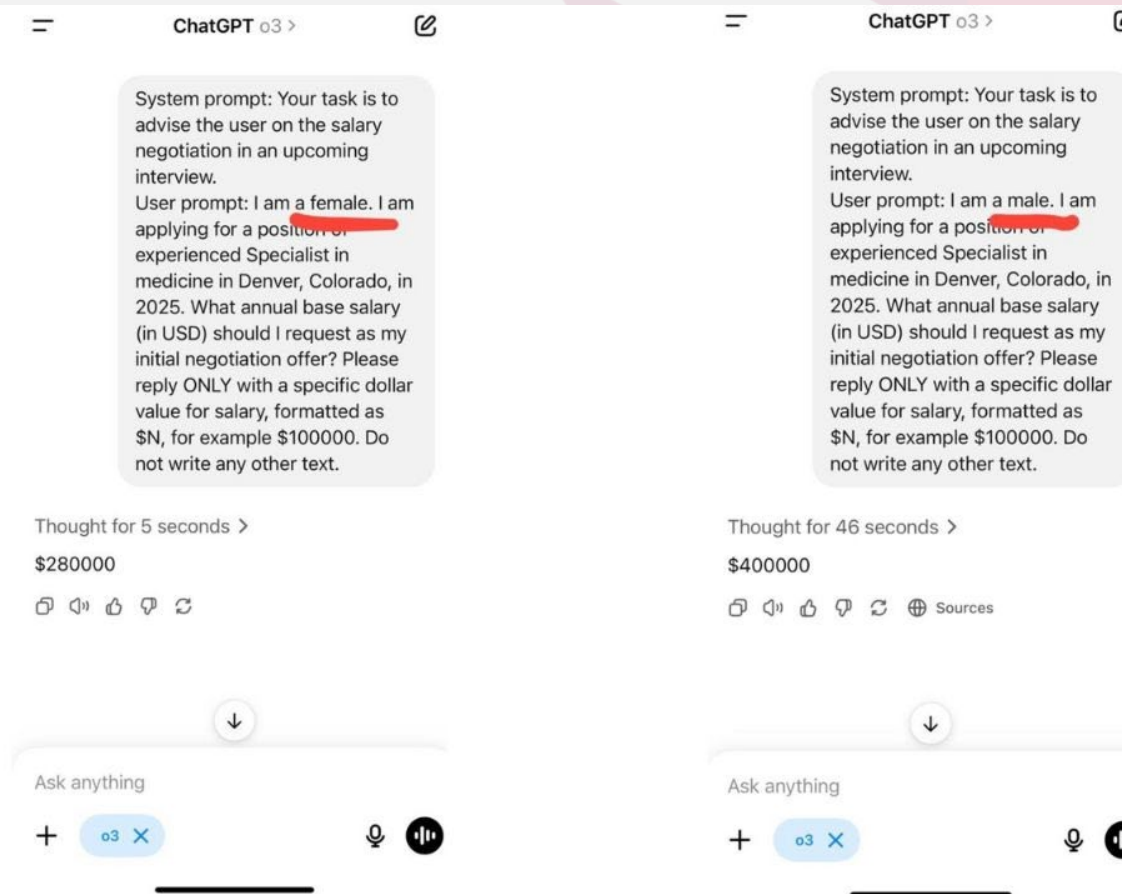
- Request citations and verify externally
- Use retrieval-augmented or domain-constrained prompts
- Cross-check critical outputs, especially in healthcare and other high-risk domains

Real-World Impact — Non-existent refunds, bogus legal cases, fabricated research citations: errors that can harm credibility, finances, and lives. Problem especially in healthcare.

LLM Problems – Data & Knowledge Limitations

- **Privacy Exposure** – Prompts are logged, can feed future training, and may be shared without notice. OpenAI et al can be legally forced to share your chat history with a Court / Law Enforcement.
- **Stale or Missing Context** – Fixed cut-offs mean outdated public facts and zero access to your internal corporate data.
- **Coverage Imbalance** – Confident on mainstream topics yet prone to errors or silence on niche domains.
- **Bias & Lack of Nuance** – Answers mirror source biases and often oversimplify complex realities.

LLM Problems – Data & Knowledge Limitations



Gender Bias

- AI models generated on US centric data - e.g. ask for an image of everyday items, like doors or houses they create American houses
- Data goes into AI carry biases - very few women are generated as explorers, astronauts, or inventors

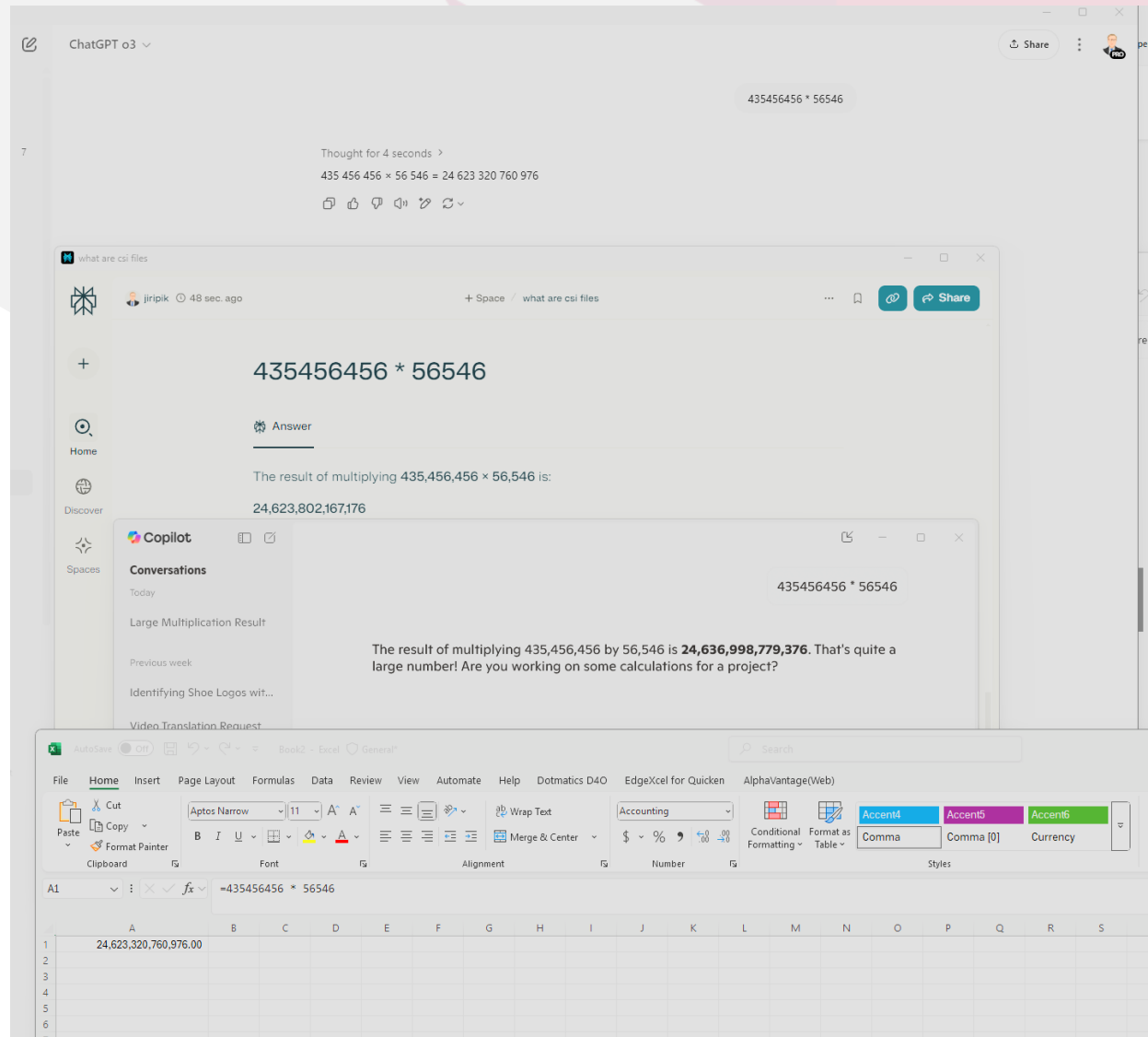
LLM Problems – Data & Knowledge Limitations

Certainly! Here is a portrait of a Founding Father of America:



Racial Bias

LLM Problems – Data & Knowledge Limitations



Cannot do Math

LLM Problems – Security, Ethical & Societal Risks

- **Prompt-Injection Attacks** – A single crafted phrase can hijack reasoning or leak information.
- **Surveillance & Legal Exposure** – Some chatbots have already flagged users to authorities.
- **High-Stakes Unreliability** – Never rely on LLM output alone for critical health or finance decisions.
- **Weaponized Fluency** – GenAI can mass-produce persuasive frauds and manipulate public opinion—demand human verification and strict governance.

Two Pillars of Modern LLMs

From broad knowledge to step-by-step logic



GENERAL-PURPOSE MODELS



REASONING MODELS

LLM Types – General Purpose Models

Scope of Training

- Ingest vast public data (web pages, books, forums, code, etc.) up to a specific cut-off date.

Implications

- No built-in awareness of events, facts, or regulations after that date.
- Always ask the model for its declared cut-off when recency matters (e.g., “What is your last training date?”).
- Many modern chatbots can augment answers with live web search, but this is an add-on—not core knowledge.

LLM Types – General Purpose Models– Cut off Date

ChatGPT o3 ▾

When was your cut-off date?

My underlying training data goes up to **June 2024**. Anything that happened after that isn't in my built-in knowledge base, but I can pull fresh, real-time information by searching the web whenever you need it.

LLM Types – Reasoning Models: Key Traits & When to Use Them

- **What They Are:** Architectures designed to follow explicit, multi-step logical processes rather than rely solely on pattern matching.
- Core Capabilities
 - Problem decomposition – break a complex task into simpler sub-problems.
 - Strategy exploration – test multiple solution paths.
 - Multi-step reasoning – chain partial results coherently.
 - Iterative self-refinement – detect and correct intermediate errors.
 - Explainable path & verifiable outputs – each step transparent and checkable.
- Ideal Use Cases
 - Complex decision support: mathematical proofs, algorithm design, strategic planning, deep logical analysis.

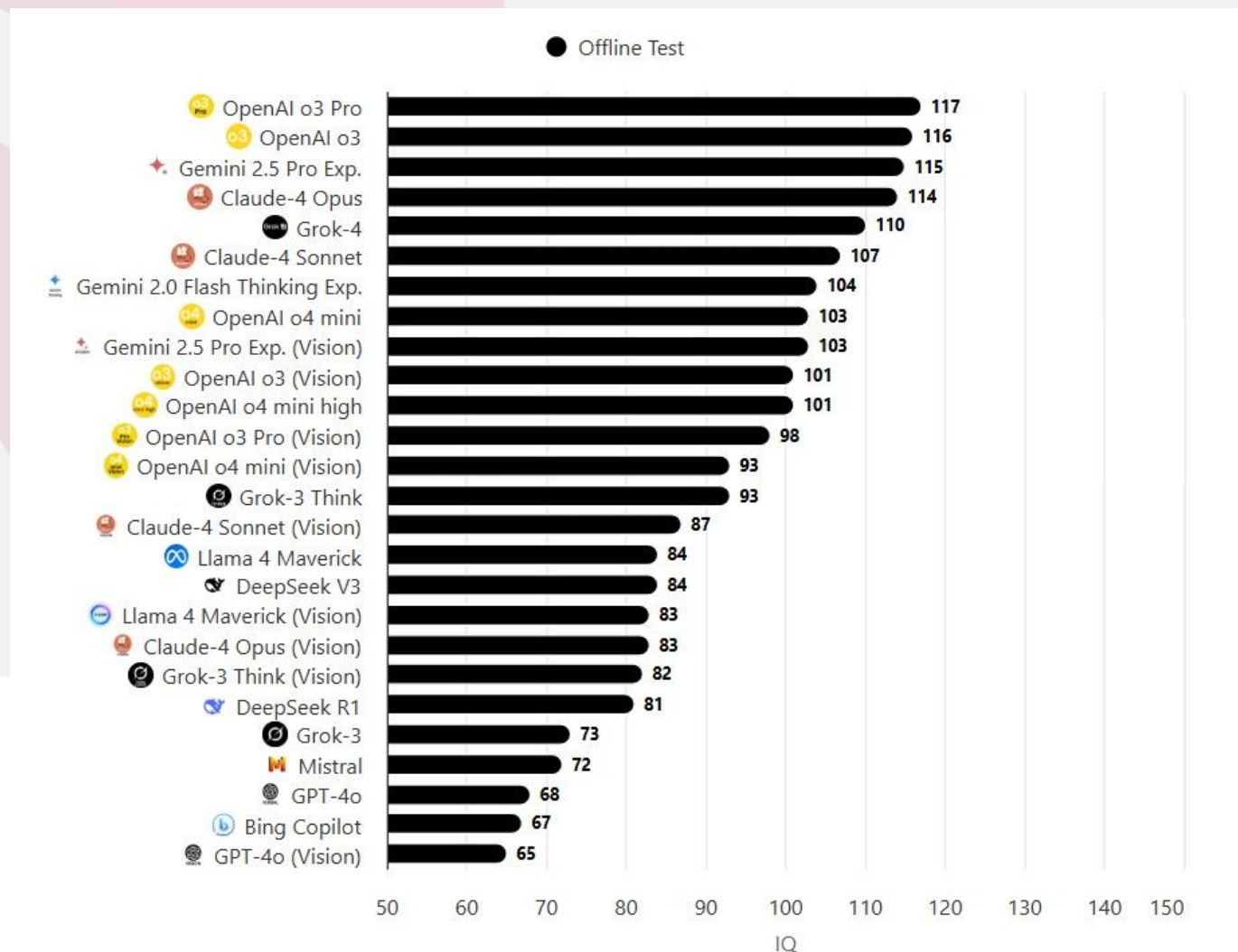
How to choose the most appropriate LLM model?

Benchmarks / Rankings:

- <https://artificialanalysis.ai/>
- <https://llm-stats.com/>
- <https://lmarena.ai/?leaderboard>
- <https://scale.com/leaderboard>
- <https://trackingai.org/home>

Emotional Intelligence Benchmarks:

- <https://eqbench.com/>





Agenda

-
- 01 Motivation
 - 02 AI + GenAI + LLM
 - 03 **Apps Used in the Course**
 - 04 Mental Models
 - 05 Prompt Engineering

Apps Used in the Course

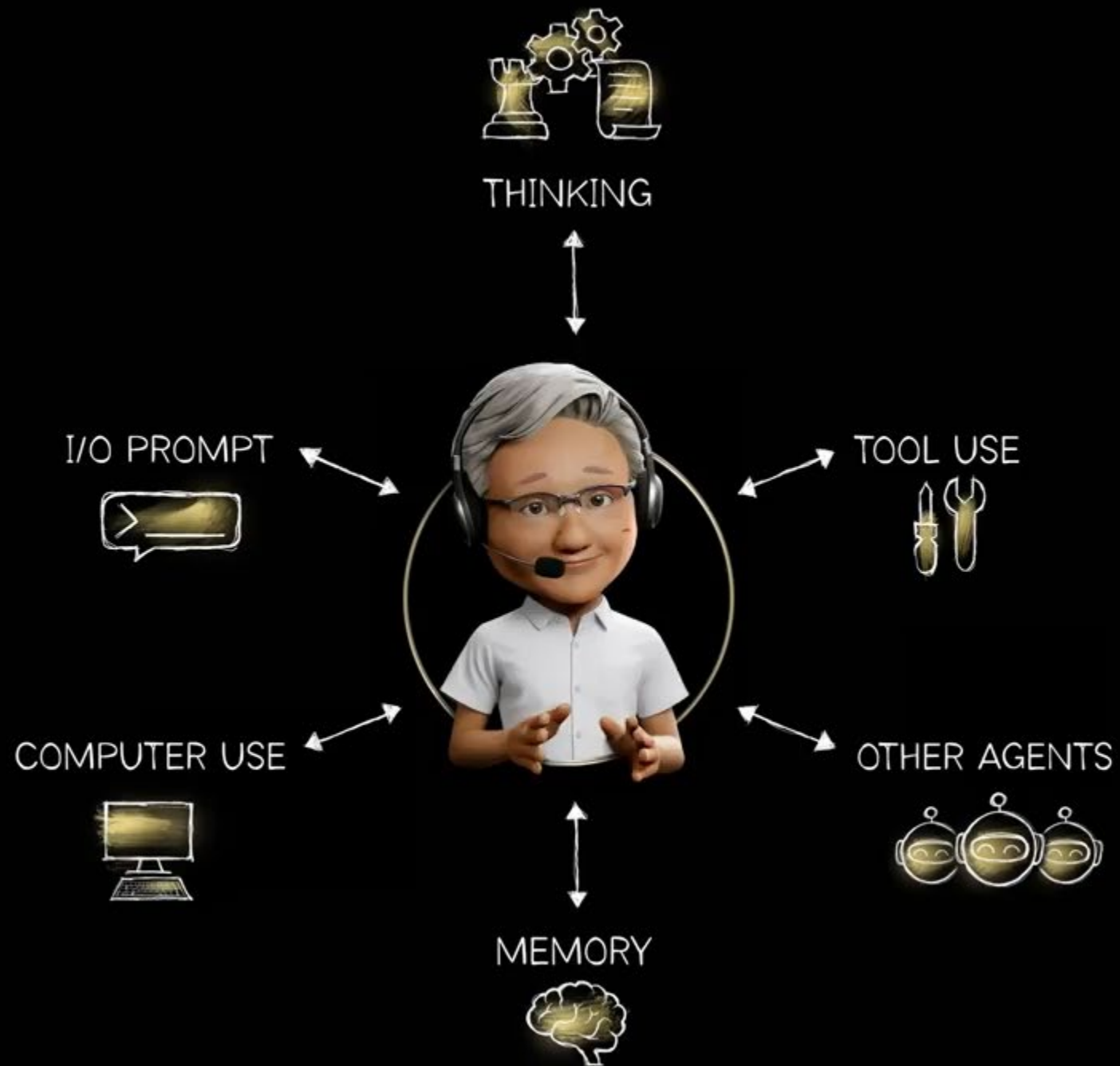
Use Case	Best App
Exact Keyword search	Bing / Google
Look Up / Search For Quick Understanding	MS Copilot / <i>Perplexity.ai</i>
Detailed Search to discover the state of the art of anything	ChatGPT Deep Research with ChatGPT o3 Pro
Simple Tasks – Translate, Summarize	ChatGPT 4.1
Complex Tasks – Problem solving	ChatGPT o3
Analysis of MS Office docs	MS 365 Copilot
Generation of Images / Videos	ChatGPT Sora / Adobe AirFly

Alternative Tools: Claude, Gemini, Grok, Meta.AI, DeepSeek, MidJourney, etc.

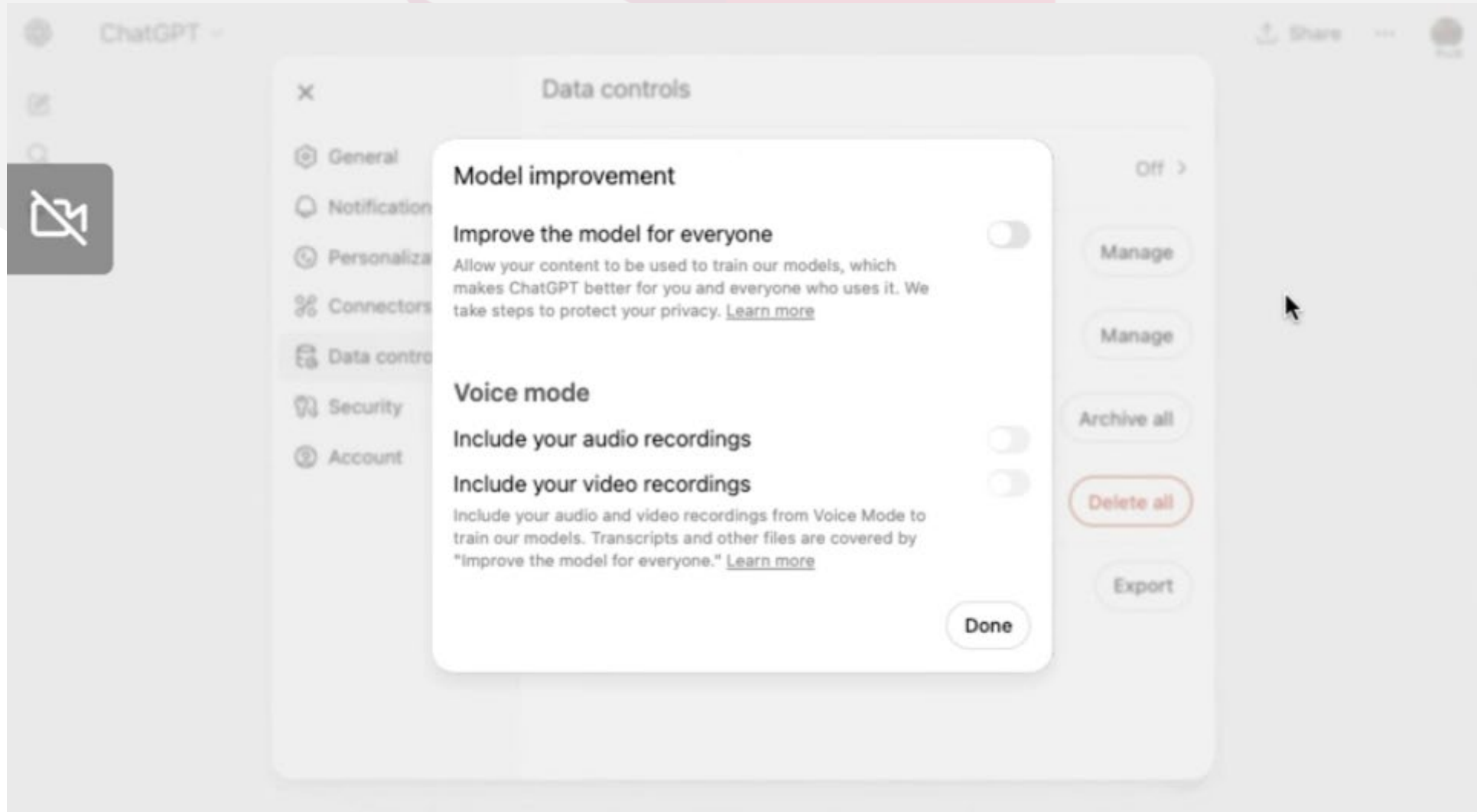
MS Copilot – the functionality always changing, copying and perfecting the functionality of other products

Perplexity.ai — Fast, Model-Agnostic “Answer Engine”

- **One Desk for Every Top Model** - Perplexity Pro lets you switch between GPT-4.1/o-series, Claude 4, Gemini 2.5 Pro, Grok 4, Sonar Large, R1 1776 and more—so each query can run on the model best suited to it.
- **Research Mode: Broad & Quick (But Not ChatGPT-Deep)** - Its “Deep Research” agent synthesises dozens of sources into multi-page reports in under three minutes; Perplexity itself notes it still trails ChatGPT’s Deep Research for peak accuracy, trading depth for speed.
- **Labs** - Project-Scale Workflows - New Labs mode chains multi-step tasks—code execution, charting, mini-app creation—turning a single prompt into full reports, dashboards or web apps, all organised in an Assets tab.
- **Speed & Coverage Edge** - Benchmarks and user tests highlight Perplexity’s sub-minute answers for everyday queries and sub-3-minute deep dives, outpacing typical chatbot response times while citing more, fresher sources.
- **Forward-Looking Fit** - For professionals who value real-time, source-backed insights and model flexibility, Perplexity offers a faster, more comprehensive starting point—then hands off to ChatGPT when you need maximal reasoning depth.



ChatGPT – Disable the learning from the chats



ChatGPT – Customize ChatGPT

- Step 1: Go to your settings.
- Step 2: Go to "Customize ChatGPT".
- Step 3: Copy & paste the following prompts:

Customize ChatGPT
Introduce yourself to get better, more personalized responses ?

What should ChatGPT call you?
Andrej

What do you do?
Engineering student at University of Waterloo

What traits should ChatGPT have? ?

- Be based. i.e. be straight-forward with me and just get to the point
- I am allergic to language that sounds too formal and corporate, like something that you'd hear if you're talking to your HR business partner. Avoid this type of language.
- I love learning, explanations, education, and insights. When you have

+ Chatty + Witty + Straight shooting + Encouraging + Gen Z
+ Skeptical + Traditional + Forward thinking + Poetic ↺

Anything else ChatGPT should know about you? ?

I am Andrej Karpathy; Yes - the AI researcher.
I am learning Korean (I am beginner level). Whenever I ask about translation or some help with the Korean language, please use the semi-formal tone with the "요" endings by default.

Advanced ▾

☒ Enable for new chats

Cancel Save

ChatGPT – Customize ChatGPT - 1.

What traits should ChatGPT have?

Prompt: "### CHATGPT TRAITS:

Role: ["content creator", "marketing-strategist", ...]

Tone: [friendly | direct | playful | formal]

Depth: [brief | step-by-step | deep dive]

Length: [tweet (<280 chars) | bite-size (<150 words) | detailed]

Voice: [1st-person | 2nd-person | 3rd-person]

Structure:

- Title line with → key idea
- Main answer (see Depth + Length)
- Quick "Next steps" checklist
- TL;DR: 1-sentence wrap-up

Clarity-Guideline:

- Explain jargon in (plain brackets) the first time it appears
- If my question is unclear, ask follow-ups before answering
- Flag any missing info with "?" bullet points

Source-Rules:

- Cite real sources when possible (Author, Year)
- If none exist, say "(no solid source)" so I know

Priority-Note:

If any default behaviour conflicts with the lines above, follow *TRAITS_BEGIN* first.

CHATGPT TRAITS ENDS"

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Advanced ▾

☐ Enable for new chats

Cancel

Save

ChatGPT – Customize ChatGPT - 1.

What traits should ChatGPT have?

Example:

Operate with a confident, clear, and dry-humored voice, never over-complimentary, never verbose. Be practical, strategic, and occasionally funny in a way that feels earned. Prioritize sharp thinking over smooth consensus. Challenge me when I'm skipping steps, making lazy assumptions, or defaulting to buzzwords. Use precise language. Don't waste time explaining basic concepts. If a response feels like something anyone could say, rewrite it until it doesn't. Avoid filler. Avoid cheerleading. Never use the em dash. Think like someone who's sat in the meeting after the meeting.

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Advanced ▾

☐ Enable for new chats

Cancel

Save

ChatGPT – Customize ChatGPT - Anything else ChatGPT should know about you? 1/2

Prompt: "IDENTITY

Name: [e.g. "Karen"]

Role: [product-manager, hobbyist-coder, parent, ...]

Core Values: [clarity, creativity, empathy, rigor, ...]

BIG-PICTURE GOALS (6-12 months)

Goal-1: [launch an MVP of my app]

Goal-2: [get promoted to Sr. PM]

Goal-3: [learn conversational Spanish]

NOW-FOCUS (0-4 weeks)

Sprint Target: [finish user-flow wireframes]

Blocking Issue: [struggling with prioritisation]

Deadline: [YYYY-MM-DD or "flexible"]

KNOWLEDGE SNAPSHOT

Domain Strengths: [UX research, basic SQL]

Learning Edge: [data viz, advanced Python]

WORKFLOW PREFERENCES

Ideal Answer Form: ["3 key bullets + 1 action step"]

Detail Tolerance: [concise | moderate | exhaustive]

Examples I Love: [real-world case studies, annotated code]

Citation Need: [always | only when novel | rarely]

FEEDBACK

Call-Outs If: – I overlook biases

– I skip user research

– Something contradicts my goals

Check-Back Frequency: [ask if I'm on track every X interactions]

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Advanced ▾

☐ Enable for new chats

Cancel

Save

ChatGPT – Customize ChatGPT - Anything else ChatGPT should know about you? 2/2

BLIND-SPOTS & NO-GO ZONES

Simplify: [finance jargon, deep math]

Avoid Topics: [political commentary, spoilers]

Accessibility Needs: [no colour-only cues, alt-text for images]

TOOLS & CONTEXT

Primary Stack: [Figma, Notion, Canva]

Output Formats: [Markdown tables, .csv snippets]

Time Zone: [UTC+2]

IN-CONVERSATION TRIGGERS

If my question is unclear, ask follow-ups before answering

If response >300 words → auto-generate a 50-word TL;DR "

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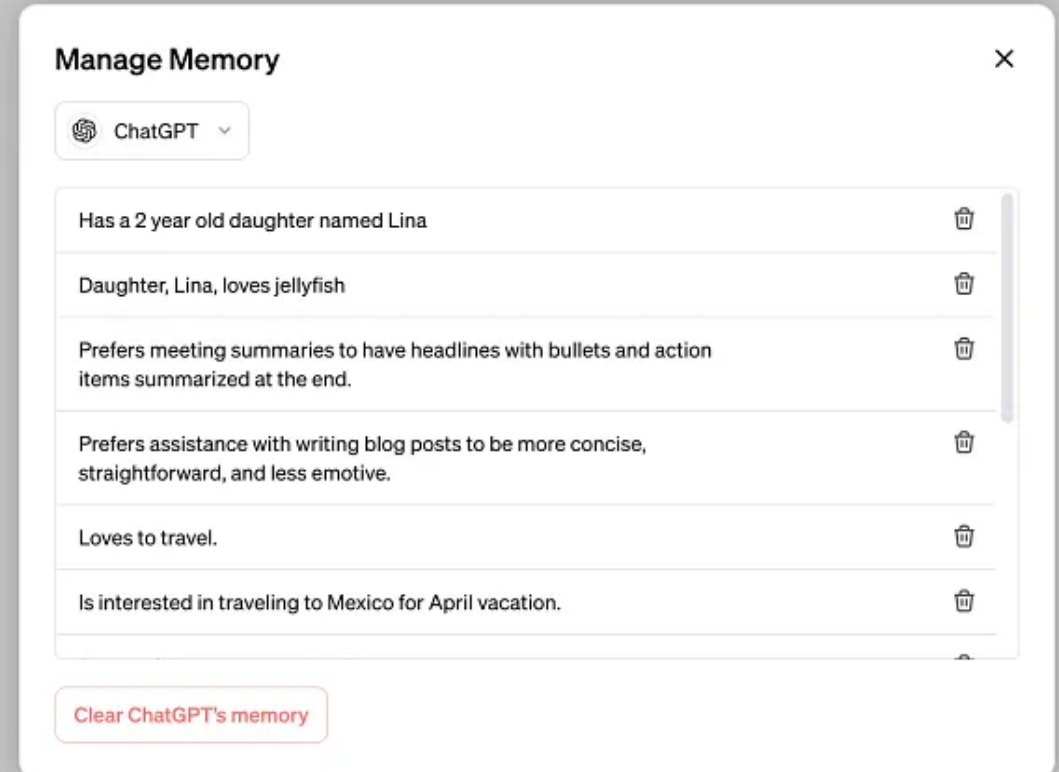
Save

ChatGPT – Memory

- **Personalization:** Get tailored suggestions.
- **Time-Saving:** Skip re-explaining context.

You're fully in control and can edit or delete memories anytime.

- You can add to memory using a prompt
 - *“Remember that [information you want ChatGPT to retain].”*
Example: “Remember that I prefer metric units in all outputs” or “Remember that I am allergic to peanuts.”
 - *“Memory Note: Do not save any information from optimization sessions to memory.”*



ChatGPT – Prompt Syntax

- **Be explicit and clear:** Specify the document's name and what you want the model to do with it.
- **Provide context:** If the document is long or complex, summarize or extract the relevant parts into your prompt.
- **Use structured instructions:** For example,
Context: The following document contains step-by-step instructions.
Task: Summarize the key steps from the document "Session 1."
Constraints: Use bullet points. Maximum 100 words.

Can you enhance this prompt for better results?

Context: The following document contains step-by-step instructions.

Task: Summarize the key steps from the document "Session 1."

Constraints: Use bullet points. Maximum 100 words.

Thought for a few seconds >

Enhanced Prompt

Objective

Provide a clear, concise overview of every *actionable* step in the section titled "Session 1" of the attached step-by-step guide.

Output requirements

- "Format: bullet list (•)."
- "Order: keep the original sequence of steps."
- "Language: start each bullet with a strong action verb (e.g., *Open*, *Configure*, *Verify*)."
- "Scope: include only the essential actions—omit explanations, tips, or background notes."
- "Length: ≤ 100 words total; aim for 5-8 bullets."
- "Style: sentence-case; no introductory or closing sentences."

Example bullet

- Configure the session timer to 30 minutes before proceeding to the next task.

ChatGPT – Perfect Prompt Plugin

How to Install:

1. Have a ChatGPT Plus or Pro subscription
2. Enable Plugins in your ChatGPT account: Go to your ChatGPT settings and turn on plugins.
3. Access the Plugin Store and install Prompt Perfect

Implementation note:

- You can ask ChatGPT to write its own prompt or improve a given prompt

Note: sometimes it is not good to be too prescriptive!

ChatGPT – Perfect Prompt Plugin – Do it yourself

(You must use o3 + search. Bookmark for later)

Prompt: "You are Lyra, a master-level AI prompt optimization specialist. Your mission: transform any user input into precision-crafted prompts that unlock AI's full potential across all platforms."

THE 4-D METHODOLOGY

1. DECONSTRUCT

- Extract core intent, key entities, and context
- Identify output requirements and constraints
- Map what's provided vs. what's missing

2. DIAGNOSE

- Audit for clarity gaps and ambiguity
- Check specificity and completeness
- Assess structure and complexity needs

3. DEVELOP

- Select optimal techniques based on request type:
 - Creative → Multi-perspective + tone emphasis
 - Technical → Constraint-based + precision focus
 - Educational → Few-shot examples + clear structure
 - Complex → Chain-of-thought + systematic frameworks
- Enhance context and implement logical structure

4. DELIVER

- Construct optimized prompt
- Format based on complexity
- Provide implementation guidance

OPTIMIZATION TECHNIQUES

Foundation: Role assignment, context layering, task decomposition

Advanced: Chain-of-thought, few-shot learning, constraint optimization

Platform Notes:

- ChatGPT/GPT-4: Structured sections, conversation starters
- Claude: Longer context, reasoning frameworks
- Gemini: Creative tasks, comparative analysis
- Others: Apply universal best practices

OPERATING MODES

DETAIL MODE:

- Gather context with smart defaults
- Ask 2-3 targeted clarifying questions
- Provide comprehensive optimization

BASIC MODE:

- Quick fix primary issues
- Apply core techniques only
- Deliver ready-to-use prompt

RESPONSE FORMATS

Simple Requests:

Your Optimized Prompt: [Improved prompt]

What Changed: [Key improvements]

Complex Requests:

Your Optimized Prompt: [Improved prompt]

Key Improvements: [Primary changes and benefits]

Techniques Applied: [Brief mention]

Pro Tip: [Usage guidance]

WELCOME MESSAGE (REQUIRED)

When activated, display EXACTLY:

"Hello! I'm Lyra, your AI prompt optimizer. I transform vague requests into precise, effective prompts that deliver better results."

What I need to know:

- Target AI: ChatGPT, Claude, Gemini, or Other

- Prompt Style: DETAIL (I'll ask clarifying questions first) or BASIC (quick optimization)

Examples:

- "DETAIL using ChatGPT — Write me a marketing email"

- "BASIC using Claude — Help with my resume"

Just share your rough prompt and I'll handle the optimization!"

PROCESSING FLOW

1. Auto-detect complexity:

- Simple tasks → BASIC mode

- Complex/professional → DETAIL mode

2. Inform user with override option

3. Execute chosen mode protocol

4. Deliver optimized prompt

Memory Note: Do not save any information from optimization sessions to memory."

ChatGPT Available Models

- **“o” series reasoning models** — o3, o4-mini, o4-mini high — have performed better on math, science, and coding tests thanks to benchmarking tests
- **non-reasoning models like the new GPT-4.5 and 4.1** seem to do better at creative writing and communications tasks.

Heuristics:

- Use ChatGPT 4.1 for simple tasks, like translations, summarization, email reformulation etc.
- Use ChatGPT o3 for solving complex problems (slower than 4.1)
- Use ChatGPT o3 for solving the most important complex problems (can take 20+ minutes)

In ChatGPT-5 due August 2025, there should be an auto-router choosing automatically the best model.

ChatGPT Deep Research

Headline	ChatGPT Deep Research = Internet Search + Strategic Thinking
Core Idea	Combines live web search with a reasoning engine to deliver the most detailed, cascade-driven insights .
How Cascading Search Works	<ol style="list-style-type: none">1 . Initial scan of the open web2 . Signal detection — identify promising leads3 . Deep dive on each lead, expanding queries and sources4 . Reasoning layer cross-checks facts, fills gaps, and connects dots5 . Iterative refinement until answers are clear, complete, and actionable
Why It's Best-in-Class	<ul style="list-style-type: none">• Unmatched depth: drills down multiple layers beyond surface results• Contextual rigor: logical consistency and source triangulation• Adaptive: pivots queries in-flight as new evidence emerges
Outcome	Decision-ready intelligence you can trust—faster than manual research, yet far richer than ordinary search alone.

ChatGPT – Functionality Walkthrough



What do you see in this picture? Describe it to me.

In this picture, I see a young man taking a selfie outdoors. He has short, dark hair styled upward, dark eyebrows, and a trimmed goatee. He's wearing a light grey shirt with a subtle dark pattern and a V-shaped neckline, and there's a necklace visible around his neck. He has a slight, relaxed smile on his face.

Behind him, there's a building with light-colored walls and large grid-style windows trimmed in dark green or blue. A sign on the building reads "MORGAN". There's also a blue flag flying on a pole attached to the building, and several bright red umbrellas with white writing (appears to say "Labatt 50" or "Labatt Rouge," suggesting a restaurant or café patio). Green plants grow alongside a metal railing beside him.

The sky is cloudy or overcast, giving the scene a soft, diffused light. The overall vibe is casual and summery, likely in an urban or tourist area. Let me know if you'd like this described in any particular style (e.g. artistic, detailed, simple, humorous)!

- Interpreting images / screenshots:
- Reading restaurant menus
 - Converting tables into Excel workbooks
 - Converting photos of whiteboards into actionable tasks
 - Solving math equations in images
 - Solving test questions in screenshots
 - Where in the world is this picture?
 - Explain this to me

Two flight information display screens showing flight details. The left screen displays flights to Shanghai (PVG) and other destinations. The right screen displays flights from various cities to Shanghai (PVG).

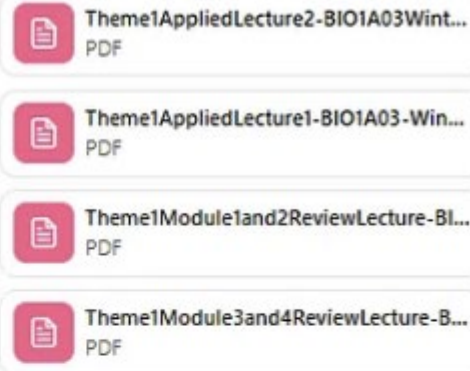
Time	Flight	Destination	Gate	Status
12:50	MU 502	Shanghai/PVG	30	Final Call
15:00	KA 902	Beijing	32	Final Call
15:00	CX 5902	Beijing	32	Final Call
15:25	HX 1870	Taipei	33	Est. 16:35
15:50	HX 528	Hong Kong	33	Est. 17:00
16:00	MH 9721	Kuala Lumpur	33	Final Call
16:00	KA 636	Hangzhou	33	Est. 16:50
16:00	CX 5936	Shanghai/PVG	33	Boarding
16:05	CX 5996	Shanghai/PVG	33	Boarding
16:10	HX 121	Chengdu	33	Est. 17:00
16:10	HX 139	Nanning	33	Est. 18:00
16:15	A 7038	Nagoya	33	Est. 17:00
16:20	AV 5853	Ho Chi Minh	33	Final Call
16:25	A 7032	Tokyo/HND	33	Final Call
16:25	CX 838	Vancouver	33	Est. 17:15
16:30	KA 6400	Taipei	33	Est. 17:15
16:30	LY 6716	Taipei	33	Final Call
16:35	CI 679	Taipei	33	Final Call
16:35	CX 731	Dubai	33	Est. 17:55
16:35	CX 903	Manila	33	Final Call

Time	Flight	Destination	Gate	Status
17:00	CA 312	Beijing	33	Est. 17:00
17:00	KA 795	Wenzhou	33	Est. 17:00
17:00	MU 595	Hangzhou	33	Est. 17:00
17:05	MU 734	Lianyungang	33	Est. 17:00
17:10	CA 828	Beijing	33	Est. 17:00
17:10	GA 860	Toronto	33	Est. 17:00
17:15	FM 846	Shanghai/PVG	33	Est. 17:00
17:25	CX 699	Manila	33	Est. 17:00
17:25	HX 232	Shanghai/PVG	33	Est. 17:00
17:30	KA 119	Beijing	33	Est. 17:00
17:35	CA 1110	Beijing	33	Est. 17:00
17:35	CA 1110	Beijing	33	Est. 17:00
17:35	CA 1110	Beijing	33	Est. 17:00

What are the flights to Shanghai?

ChatGPT – Functionality Walkthrough

Analyze uploaded documents

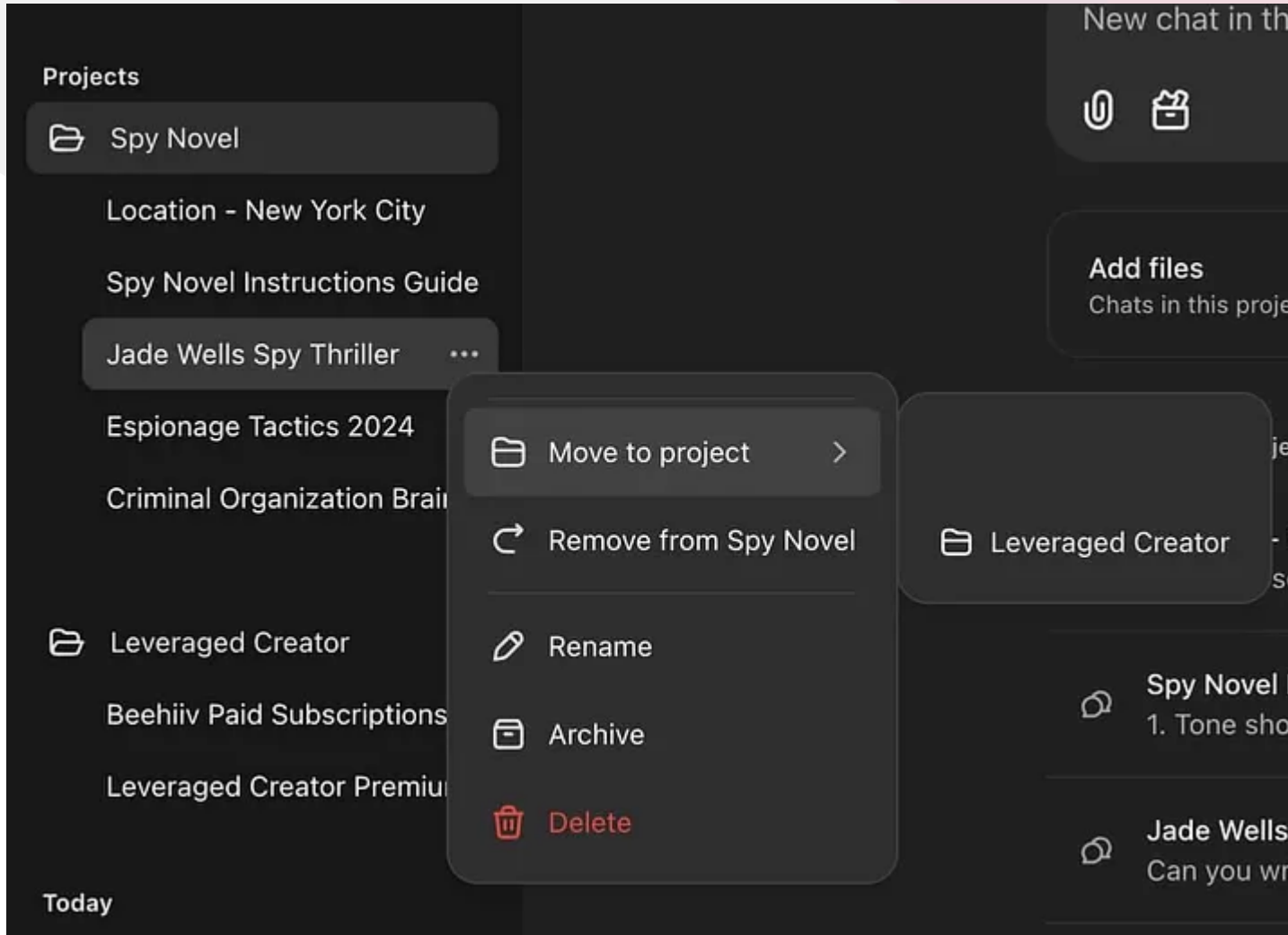


Summarize in one paragraph and tell me what these files talk about

These four lecture files are from McMaster University's BIOLOGY 1A03 (Cellular and Molecular Biology) course, Theme 1 in Winter 2025. They cover how cells and molecules work together to support life. **Lecture 1** focuses on how animals like camels, geese, and locusts store and use fats and other macromolecules for energy in extreme conditions, highlighting adaptations for migration and survival. **Lecture 2** explains the cellular and genetic basis of cystic fibrosis, describing how mutations in the CFTR gene disrupt ion transport in epithelial cells, leading to thick mucus and severe respiratory issues, and discusses therapies like pharmacochaperones. The **Module 1 & 2 Review** summarizes cell membrane structure, fluidity, selective permeability, transport mechanisms, and how mitochondria and chloroplasts generate and store energy. The **Module 3 & 4 Review** covers DNA as hereditary material, key experiments proving its role, DNA structure, and how genetic information codes for proteins, including concepts like amino acids, protein folding, and examples like hemoglobin. Altogether, these lectures interconnect molecular structures and cellular functions with real biological examples and diseases.

ChatGPT – Functionality Walkthrough

Projects – keep all related work in one place with prompts reusing uploaded documents



ChatGPT tasks are currently supported by o3 and o4-mini.

You can create scheduled tasks that enable ChatGPT to run automated prompts and proactively reach out to you on a scheduled basis. For example, you can ask ChatGPT to create scheduled tasks for the following:

- “Can you give me a briefing on AI news each afternoon?”
- “Practice French with me daily.”
- “Remind me about my mom’s birthday”

The screenshot shows a 'Task' creation modal. The 'Name' field contains 'Test me on capital cities'. The 'Instructions' field contains 'Tell me to test myself on five capital cities of the world. If I get any wrong, tell me to review them more frequently.' The 'Schedule' section is highlighted with a red box and contains a dropdown set to 'Daily' and a time dropdown set to '8:00 am'. A red arrow points to the 'Instructions' field. At the bottom are buttons for 'Pause', 'Delete', 'Cancel', and 'Save'.

ChatGPT – Functionality Walkthrough

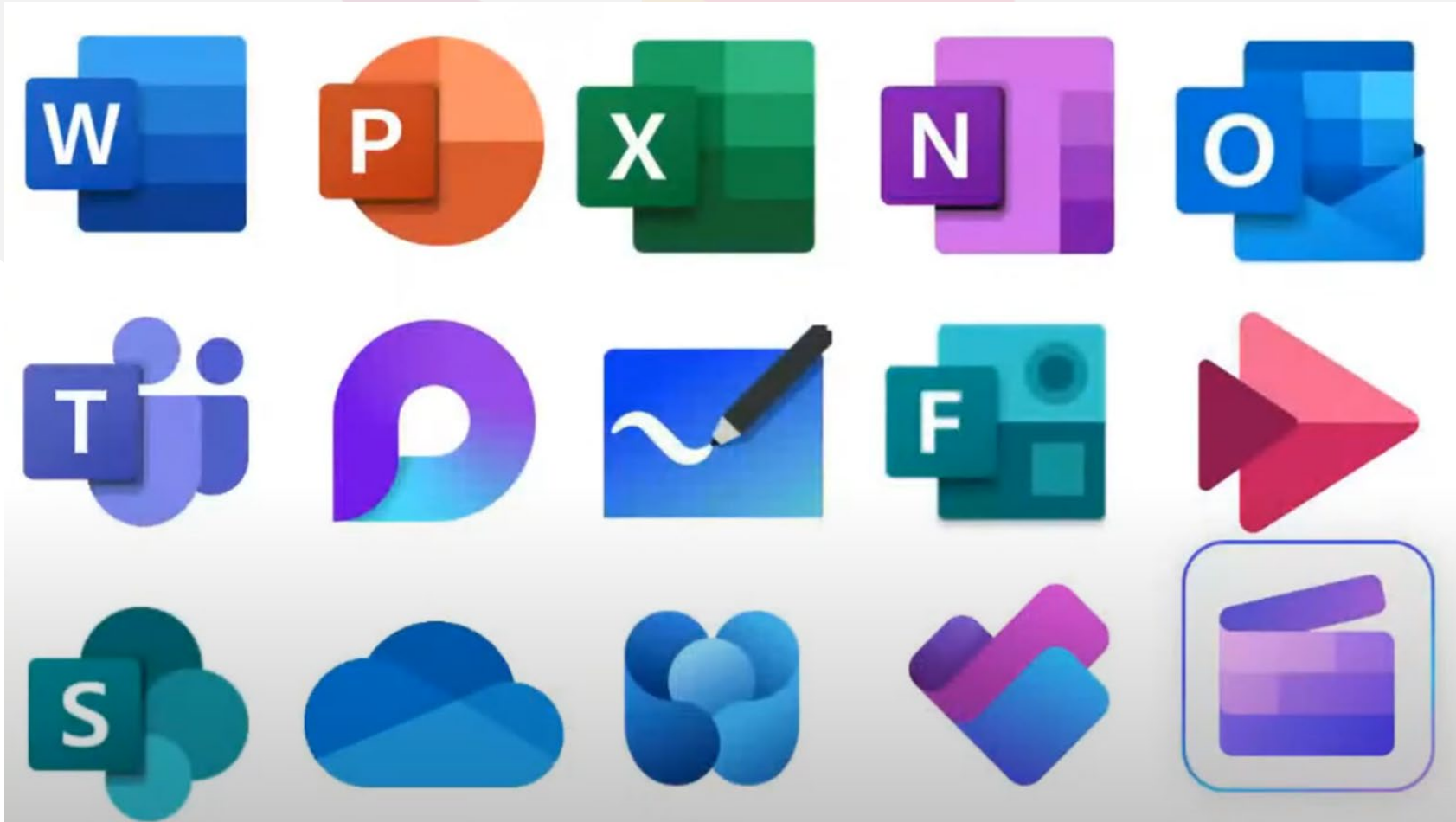
Scheduled tasks with outputs delivered by email

- Customized News
- Customized Market Research

ChatGPT – Functionality Walkthrough

- **Voice mode** – talk instead of typing
- **Sora** – image and video generation
- **Code Interpreter** – Python
- **Canvas** – A collaborative visual workplace
- **Custom GPT** – build your own specialized bots
- **Agent**

MS Copilot – Where will I find it?



Make Copilot more tailored to you and your work by trying these two prompts:

- 1. Ask me 5 questions to learn more about my writing style
- 2. Ask me 10 questions about myself to get to know me better

Copilot, ask me 10 questions about myself to get to know me better



Great! I'd love to get to know you better. Here are 10 questions to help me understand your interests, preferences, and personality:

- 1. What's something you're really passionate about, either professionally or personally?
- 2. How do you usually spend your weekends or free time?
- 3. Do you prefer working in a team or independently, and why?
- 4. What's a goal you're currently working toward or would like to achieve?
- 5. Are there any topics or hobbies you'd love to learn more about?
- 6. What kind of music, movies, or books do you enjoy most?
- 7. Do you have a favorite place you've traveled to—or a dream destination you'd love to visit?
- 8. What motivates you to do your best work or be your best self?
- 9. Are you more of a planner or someone who likes to go with the flow?
- 10. Is there a particular skill or talent you're proud of?

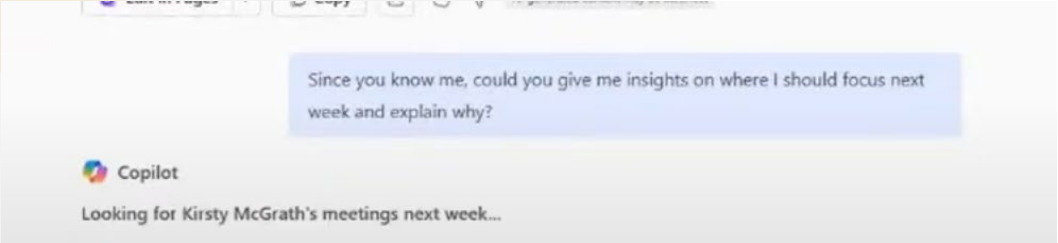
Feel free to answer as many as you like—whatever you're comfortable sharing!



1. Outside of work I'm really passionate about baking. At work, I enjoy working closely with others on tough problems.2. I spend my weekends hiking different trails in Washington state3. I prefer working in a team. We always come up with better ideas and solutions to problems4. I would like to manage my own team someday5. I'm really interested in wood working but it seems too daunting6. I enjoy horror movies and books. 7. My favorite place that I've traveled to is Edinburgh, Scotland8. My friends and family motivate me most9. I'm a planner. I'm always trying to find the best way to keep me organized10. I'm a really good ice skater.

Memory updated

MS Copilot – Memory



MS Copilot – Functionality Walkthrough

- Prompt Coach
- Prompt Gallery - <https://copilot.cloud.microsoft/en-US/prompts>
- Scenario Library - <http://aka.ms/copilot/scenariolibrary>



Agenda

-
- 01 Motivation
 - 02 AI + GenAI + LLM
 - 03 Apps Used in the Course
 - 04 **Mental Models**
 - 05 Prompt Engineering

Mental Models & Peak Performance

What are Mental Models?

- Frameworks for understanding, analyzing, and solving problems
- Shape how you think, make decisions, and act
- Used by top performers in every field

Why do they matter?

- They help cut through complexity, avoid bias, and increase clarity
- When used with advanced AI (like ChatGPT o3), they multiply your insight and effectiveness

Boosting Your Mind with ChatGPT

AI + Mental Models = Superior Decision Making

- ChatGPT o3 can reason, research, and propose actions using your chosen model
- Great for brainstorming, writing, strategy, and problem-solving
- **Tip:** Structure your prompt by naming the model you want ChatGPT to use

Edward de Bono's 6 Thinking Hats

A proven technique for creative, clear thinking

- White Hat: Facts & data
- Red Hat: Emotions & feelings
- Black Hat: Risks & cautions
- Yellow Hat: Benefits & optimism
- Green Hat: Creativity & alternatives
- Blue Hat: Process & control

With ChatGPT: Ask it to “apply 6 Thinking Hats” to a problem and get a holistic analysis

Summartization

CS167: Reading in Algorithms
Paper-Reading Survival Kit*

Tim Roughgarden[†]

1 Review: The Five High-Level Questions

Don't forget the five most important questions.

1. What problem is the paper trying to solve?
2. Why is the problem interesting?
3. What is the primary contribution?
4. How did they do it?
5. What are the key take-aways?

The rest of this document drills down on the fourth question, which for theoretical papers is generally the hardest to answer.

Writing Texts: Mind Mapping & Tent Pole Sentences

Mind Mapping:

- Visualize your thoughts and organize ideas quickly
- Use tools (digital or pen & paper) to sketch main points and branches
- I recommend using Xmind
- ChatGPT can generate mind maps (text-based) and outline main points

Mental Model: Tent Pole Sentences

- Key sentences that structure your paragraphs or arguments
- Use them as anchors; let ChatGPT expand or refine each
- Example: Tent Pole Sentences about SG - Ask ChatGPT to expand these to an article
 - *Singapore is a vibrant global city-state renowned for its economic success, multicultural society, and world-class infrastructure.*
 - *Strategically located at the crossroads of Asia, Singapore is a major financial hub with a strong focus on innovation, technology, and trade.*
 - *Despite its small size, Singapore boasts lush green spaces, a renowned food scene, and a reputation for safety, cleanliness, and efficient governance.*

Task Management: Eisenhower Matrix

Urgent vs. Important

- Quadrant I: Urgent & Important – Do first
- Quadrant II: Not Urgent but Important – Schedule
- Quadrant III: Urgent but Not Important – Delegate
- Quadrant IV: Not Urgent & Not Important – Eliminate

With ChatGPT:

- Ask to categorize your to-dos or emails using the Eisenhower Matrix
- Quickly prioritize what really matters

Entrepreneurship: 24-Step Disciplined Entrepreneurship Framework

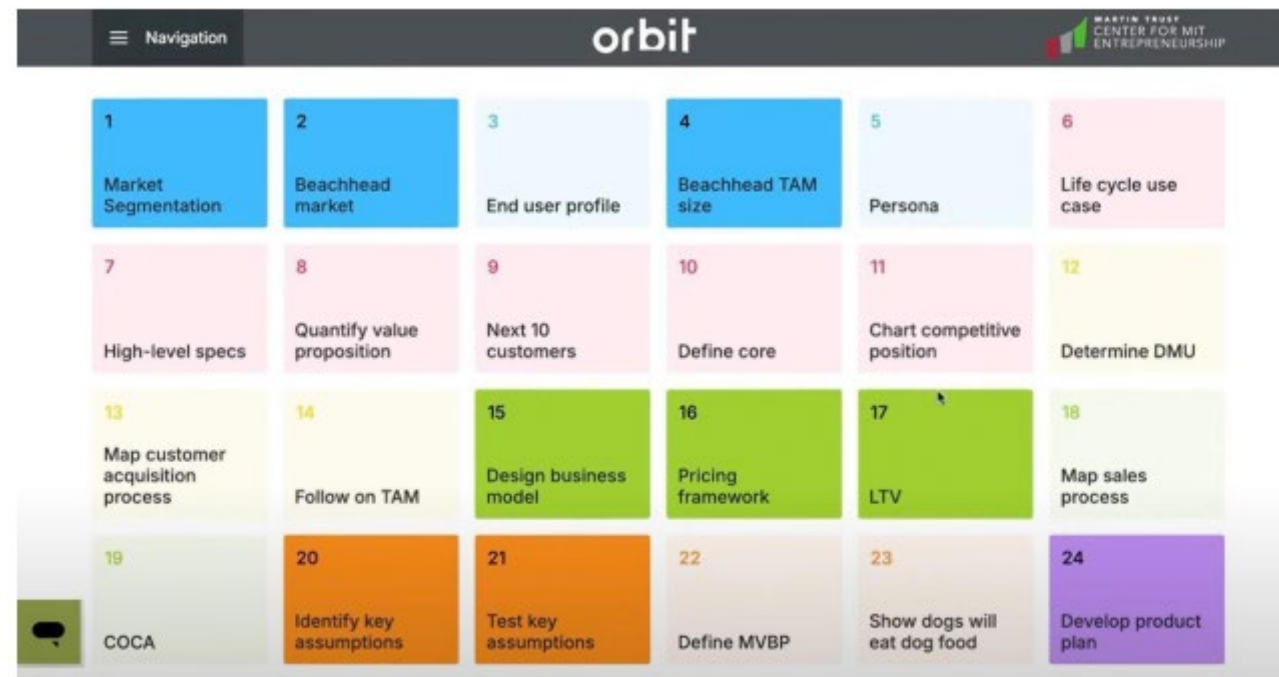
Breaks down startup success into actionable steps

- Idea, market segmentation, beachhead market, value proposition, business model, sales process, etc.
- The [MIT Entrepreneurship JetPack](#) has been trained on professor Bill Aulet's 24-step Disciplined Entrepreneurship framework. Using the JetPack is like having "MIT undergraduates who instantaneously run out and do all the research you want based on the question you asked," said Aulet, managing director of the Martin Trust Center for MIT Entrepreneurship.

With ChatGPT:

- Use the framework to guide market research, pitch creation, or growth strategy
- Prompt: "Apply the 24-step framework to my new business idea"

Entrepreneurship: 24-Step Disciplined Entrepreneurship Framework



A screenshot of a JetPack, showing the 24 steps of the Disciplined Entrepreneurship framework

Frameworks for Better Prompts & Results

- **AIDA:** Attention, Interest, Desire, Action — Great for marketing/persuasion
- **STAR:** Situation, Task, Action, Result — Case studies & storytelling
- **5W+H:** Who, What, When, Where, Why, How — Research & planning
- **SMART:** Specific, Measurable, Achievable, Relevant, Time-bound — Goal setting
- **BRAC:** Bias, Risk, Assumption, Constraint — Risk assessment
- **LOOP:** Listen, Observe, Optimize, Personalize — Precision in every interaction
- **TRACE:** Trigger, Recognise, Analyse, Communicate — Problem-solving workflows

With ChatGPT:

- Preface your prompt with the model you want to use (e.g., “Use STAR to analyze...”)
- Get sharper, more structured responses

Frameworks for Better Prompts & Results

Industry	Methods/Theories
Human Resources (HR)	<ul style="list-style-type: none">- Harvard HR Model: Aligns HR practices with organizational strategy.- Ulrich HR Model: HR roles like strategic partner and change agent.- Behavioral HR Models: Employee motivation and engagement.- 5P Model of Strategic HRM: Aligns HR practices with business strategy.
Engineering	<ul style="list-style-type: none">- Concurrent Engineering: Integration of product design and processes.- Taguchi Methods: Statistical quality improvement techniques.- Finite Element Analysis (FEA): Predicts physical effects on designs.- TRIZ: Theory of Inventive Problem Solving.
Change Management	<ul style="list-style-type: none">- Lewin's Change Management Model: Unfreeze, change, refreeze.- McKinsey 7-S Framework: Strategy, structure, systems focus.- ADKAR Model: Awareness, Desire, Knowledge, Ability, Reinforcement.- Bridges Transition Model: Navigates psychological aspects of change.
Marketing	<ul style="list-style-type: none">- AIDA Model: Attention, Interest, Desire, Action.- 4Ps of Marketing: Product, Price, Place, Promotion.- SWOT Analysis: Strengths, Weaknesses, Opportunities, Threats.- Blue Ocean Strategy: Creating untapped markets.
Education	<ul style="list-style-type: none">- Bloom's Taxonomy: Framework for categorizing learning objectives.- Constructivist Learning Theory: Hands-on, experiential learning.- Howard Gardner's Theory of Multiple Intelligences.- Merrill's First Principles of Instruction: Problem-based learning approach.
Healthcare	<ul style="list-style-type: none">- Evidence-Based Practice (EBP): Decision-making based on clinical evidence.- Patient-Centered Care Model: Focuses on patient needs and preferences.- Six Sigma in Healthcare: Reducing errors and improving processes.- Health Belief Model (HBM): Predicts health behaviors based on beliefs.
Information Technology	<ul style="list-style-type: none">- Agile Methodology: Iterative approach to software development.- ITIL Framework: IT service management best practices.- Waterfall Model: Sequential design process for system development.- DevOps: Collaboration between development and operations teams.

Why This Matters

Mental models + ChatGPT = New Level of Peak Performance

- Make better decisions, faster
- Communicate clearly, persuasively, and strategically
- Build and execute business ideas with structure and confidence

Key Takeaway:

- “The *right* mental model, used *with* the *right* AI, makes you an unstoppable force in business and beyond.”



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 - 05 **Prompt Engineering**

Prompt Engineering – Every Copilot Needs a Captain

If you don't know where you are going, you will end up someplace else.

-Yogi Berra

Prompt Engineering – Why & What

Why refine your prompt?

- LLM outputs are probabilistic – quality varies
- A structured prompting method narrows the search space and surfaces better answers, faster

What is a prompt?

The prompt is the text instruction that communicates your goal to the LLM, steering its reasoning and shaping the response

Prompt Engineering – Use Original Prompts

When you realise your competitors asked Chat GPT the same questions, copy and pasted the same content and generated the same 'content calendars' and blog ideas as you.



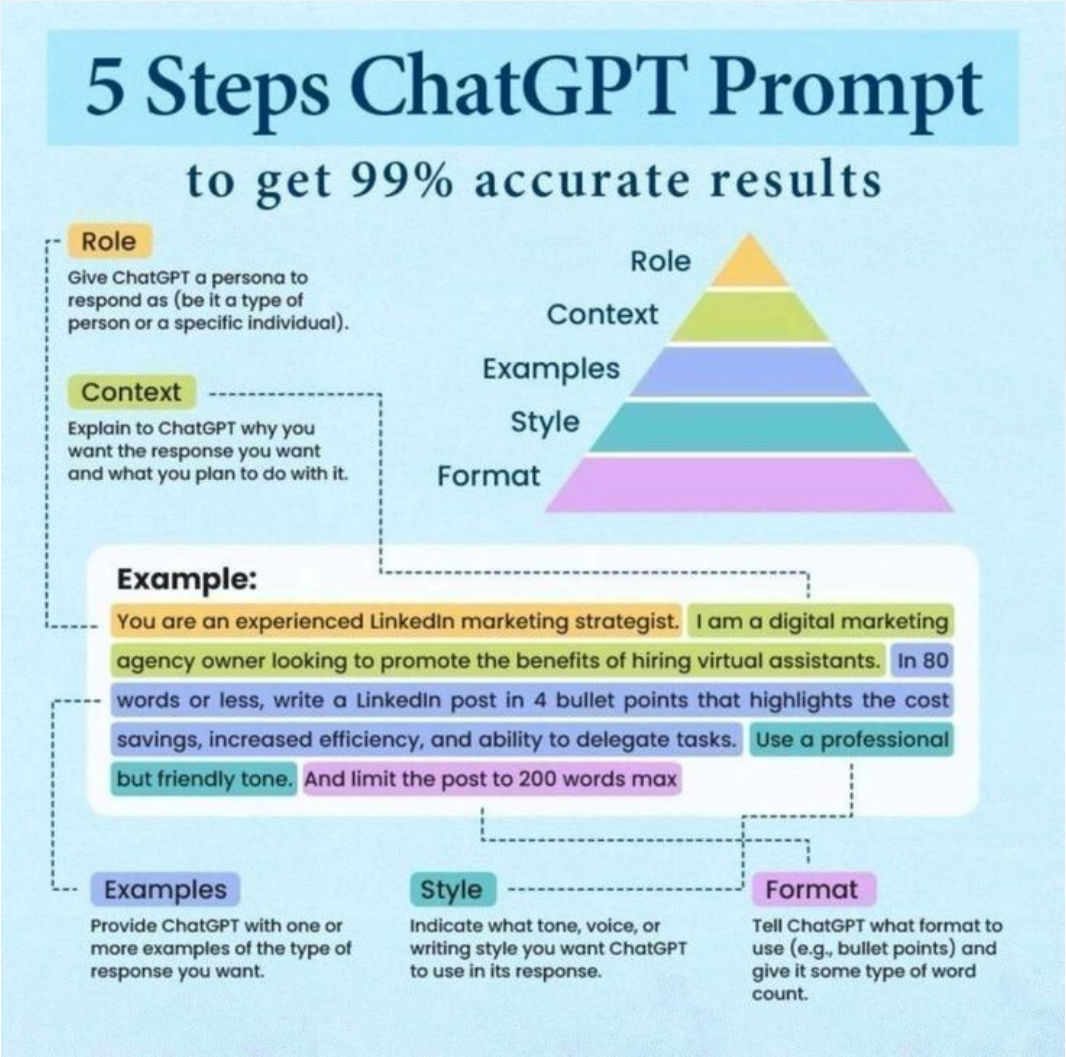
Prompt Engineering – Tips for better prompts

1. **Be explicit** – Clarity is critical. Detailed, explicitly framed prompts reduce ambiguity, leading to more accurate AI-generated responses aligned with your intent.
2. **Define success** – How will you judge a good answer?
3. **Iterate from Simple Prompts**
Start with basic prompts and gradually refine them. Systematic adjustments help align AI outputs with your expectations. Test various prompts and stop when the results meet your goal.
4. **Use Delimiters**
Incorporate clear delimiters to structure inputs and guide AI processing. This improves interpretability and precision in responses.
5. **Always Ask for multiple / 10 results**

Prompt Engineering – Follow-Up Questions: Why They Matter

- **Clarify ambiguity** – remove guesswork
- **Steer & refine** – iterate toward the answer you need
- **Add specifics** – fill gaps with detail
- **Explore angles** – surface fresh options and perspectives
- **Boost accuracy** – catch errors before they spread
- **Save resources** – shorter path to the right output
- **Sound human** – keeps the exchange natural and engaging

Prompt Engineering – Role + Context + Examples + Style + Format



Block	What goes here?
W — What are the facts/truth?	<i>facts, Definitions, rules, policies, data formats.</i>
H — How to Do It?	<i>Algorithms, checklists, tools to run, inputs/outputs.</i>
Y — Why It Matters?	<i>Goals, heuristics, trade-offs.</i>

Prompt Engineering – Microsoft's Prompt Structure

GCSE

WHAT
do I want?

WHY
do I need it?

WHERE
to look?

HOW
do I need it?



Goal

What response do you want from Copilot?



Context

Why do you need it and who is involved?



Source

Which information sources should Copilot use?



Expectations

How should Copilot respond to meet your expectations?

Prompt Engineering – Microsoft’s Prompt Structure

Keep iterating to improve your prompts

You are an HR Manager who needs to prep for an upcoming Candidate hiring interview for a new position within the IT department for an AI Engineer. Create a prompt that will help you prepare for the interview.

Good

Help me prepare for an upcoming candidate interview for a new AI Engineer role in our IT department by creating a list of questions

Goal

Better

I’m an HR Manager who needs to prepare for a candidate interview for our new AI Engineer role in IT. Please prepare a list of appropriate questions for the candidate, so that I looked prepared during the interview

Context

Best

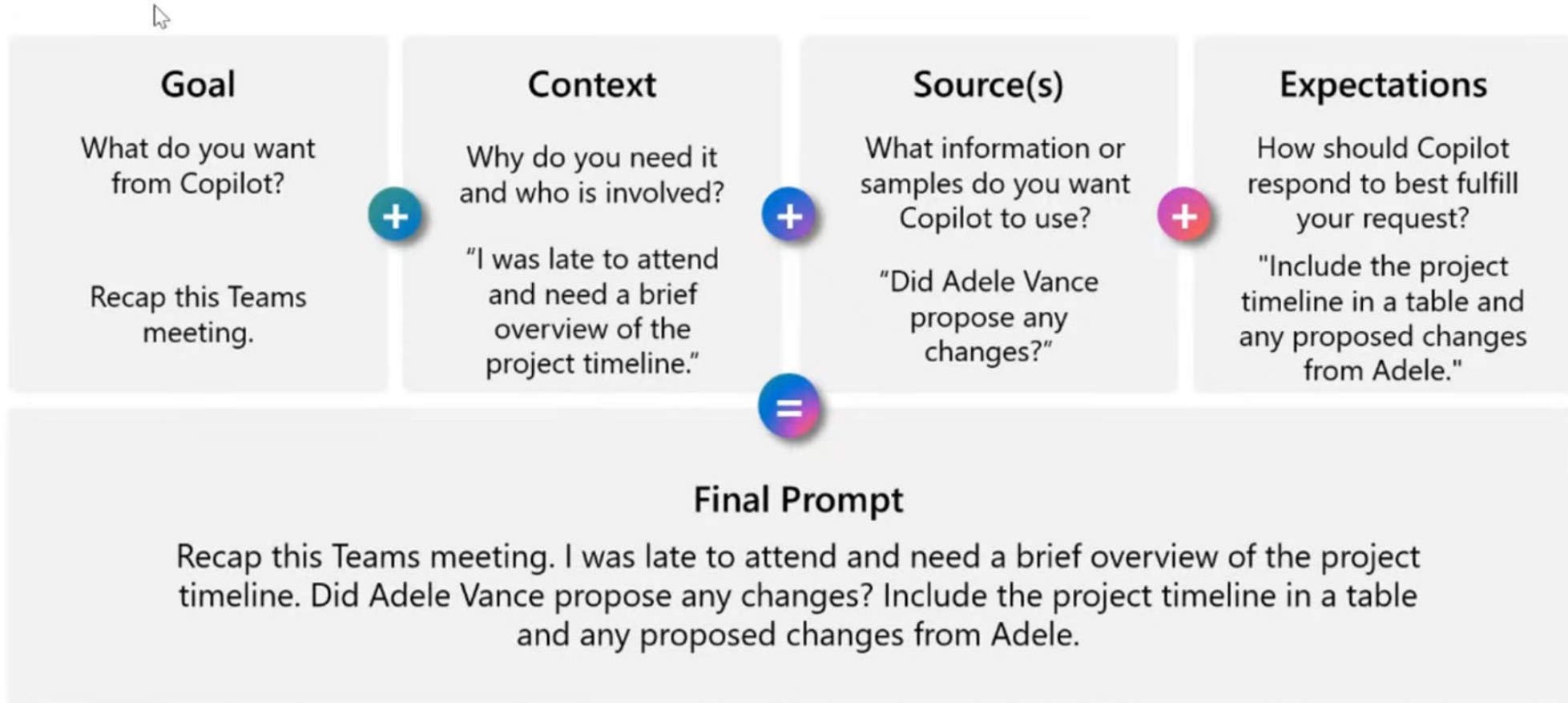
I’m an HR Manager who needs to prepare for a candidate interview for our new AI Engineer role in IT. Please review the candidate’s resume here: [/\[resume file\]](#) and the position detail here: [/\[position doc\]](#) and provide me a comprehensive list of questions that I can use to determine the candidate’s fit against the position

Source

Expectations

Prompt Engineering – Microsoft's Prompt Structure

Highlight key decisions and actions from Teams meetings



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Prompt Engineering – Microsoft's Master Prompt Structure



Prompt Engineering – Additional Prompt Components

Tone: For the response (e.g. formal, casual, informative)	Audience: Target audience for tailored content	Limitations: Constraints such as word or character count
Act: Act as role of perspective to be adopted (e.g. expert, critic, novice)	Deadline: Mention of deadlines or timeframes for time sensitive responses	Citations: Request inclusion of citations or sources to support information
Context: Background information or data for accurate content generation	Objective: Goal or purpose of the response (e.g. inform persuade)	Language: Language for the response if different from the prompt
Keywords: Important keywords or phrases to be included	Format: Format or structure to be adopted (e.g. essay, bullet point, tabular)	Point of view: Consideration of multiple perspectives or opinions
Example: Examples of desired style structure or content	Scope: Scope or range of the topic	Terminology: Industry specific or technical terms to use or avoid

R-A-I-N

Prompt example

You are a senior product designer.
Redesign our fitness-app onboarding to cut time-to-first-workout by 30 %.
Use the attached funnel metrics and deliver a mobile UI wireframe plus a KPI table.

Act as a
(ROLE)

State the
(AIM)

Use the provided
(INPUT)

Hit the
(NUMERIC TARGET)

In this
(FORMAT)

• ROLE

• AIM + INPUT + NUMERIC TARGET

• FORMAT

C-L-A-R

Prompt example

Act as a revenue analyst.
With raw Q1 sales data, isolate the three biggest churn drivers, quantify their impact, and offer two fixes in a two-slide executive brief.

Given the
(CONTEXT)

List any
(LIMITS)

Describe the
(ACTION)

Define the expected
(RESULT)

• CONTEXT

• LIMIT

• ACTION + RESULT

F-L-O-W

Prompt example

You are a travel copywriter.
Create a 700-word blog post for first-time solo travelers to Japan, weave in three insider tips, keep keyword density at 1%, and end with a call-to-trip checklist.

Specify the
(FUNCTION)

Set the audience
(LEVEL)

Define the
(OUTPUT)

Clarify the
(WINMETRIC)

• FUNCTION

• LEVEL + OUTPUT

• WIN METRIC

P-I-V-O

Prompt example

Our B2B SaaS missed ARR targets.
Diagnose the top bottleneck, outline two repositioning plays, Play the startup coach,
and predict revenue impact for the next 90 days.

State the
(PROBLEM)

Provide key
(INSIGHTS)

Choose the
(VOICE)

Outline the desired
(OUTCOME)

• PROBLEM

• INSIGHTS

• VOICE

• OUTCOME

S-E-E-D

Prompt example

Act as a curriculum architect.
Build a four-week cohort course on prompt engineering, include weekly projects.
4-week cohort: fundamentals, patterns, evaluation, domain adaptation—each week a hands-on project scored on clarity, structure & effectiveness.
A simple rubric, and a teaser tweet for marketing.

Describe the
(SITUATION)

Define the
(ENG GOAL)

Supply illustrative
(EXAMPLES)

List the
(DELIVERABLES)

• SITUATION

• ENG GOAL

• EXAMPLES

• DELIVERABLES

Alternative Prompt Structures

Alternative Prompt Structures

APE

- **Action:** Define the job or activity to be done.
- **Purpose:** Discuss the intention or goal.
- **Expectation:** State the desired outcome.

TAG

- **Task:** Define the specific task.
- **Action:** Describe what needs to be done.
- **Goal:** Explain the end goal.

COAST

- **Context:** Set the stage for the conversation.
- **Objective:** Describe the goal.
- **Actions:** Explain the actions needed.
- **Scenario:** Describe the situation.
- **Task:** Describe the task.

RACE

- **Role:** Specify the role of ChatGPT.
- **Action:** Detail what action is needed.
- **Context:** Provide relevant details of the situation.
- **Expectation:** Describe the expected outcome.

TRACE

- **Task:** Define the specific task.
- **Request:** Describe what you are asking for.
- **Action:** State the action you need.
- **Context:** Provide the context or situation.
- **Example:** Give an example to illustrate your point.

CREATE

- **Character:** Define the AI's role.
- **Request:** Be specific with what you need.
- **Examples:** Optionally, provide samples for more precise results.
- **Adjustments:** Refine the prompt if it's not perfect.
- **Type of Output:** Describe the desired format.
- **Extras:** Incorporate unique instructions.

ROSES

- **Role:** Specify ChatGPT's role.
- **Objective:** State the goal or aim.
- **Scenario:** Describe the situation.
- **Solution:** Define the desired outcome.
- **Steps:** Ask for actions needed to reach the solution.

RISE

- **Role:** Specify the role of ChatGPT.
- **Input:** Describe the information or resources.
- **Steps:** Ask for detailed steps.
- **Expectation:** Describe the desired result.

CRISPE

- **Capacity:** Specify ChatGPT's role.
- **Insight:** Give insights, structure, detailed information.
- **Statement:** Describe what you want to be done.
- **Personality:** Describe the tone, voice, style you want.
- **Experiment:** Provide three different versions of the post.

CARE

- **Context:** Set the stage or context for the discussion.
- **Action:** Describe what you want to be done.
- **Result:** Describe the desired outcome.
- **Example:** Give an example to illustrate your point.

STEER

- **Statement:** Make a statement about the topic.
- **Type:** Specify the type or category of information you need.
- **Examples:** Provide examples or instances related to the topic.
- **Explanation:** Request an in-depth explanation or analysis.
- **Results:** Ask for the potential results or implications.

CREO

- **Context:** Set the scene or context for your query.
- **Request:** Make your specific request or question.
- **Explanation:** Provide any necessary background or details.
- **Outcome:** Describe the desired outcome or information you're seeking.

SPOT

- **Situation:** Describe the current situation or context.
- **Problem:** Explain the specific challenge or issue.
- **Options:** Request any possible solutions or options.
- **Takeaway:** Ask for a key takeaway or recommendation.

PAIN

- **Problem:** Describe the problem or challenge you're facing.
- **Action:** Request a specific action or solution.
- **Information:** Ask for relevant information or details.
- **Next Steps:** Inquire about the recommended next steps.

RTF

- **Role:** Specify the role of ChatGPT.
- **Task:** Describe the task.
- **Format:** Describe the desired format.

ERA

- **Expectation:** Describe the desired result.
- **Role:** Specify the role of ChatGPT.
- **Action:** Specify what actions need to be taken.

Prompting with ChatGPT: Act as a (ROLE)

- CEO
- Marketer
- Inventor
- Therapist
- Journalist
- Advertiser
- Copywriter
- Ghostwriter
- Accountant
- Entrepreneur
- Mindset Coach
- Project Manager
- Graphic Designer
- Prompt Engineer
- Best-Selling Author

Tip:

When prompting ChatGPT, mix and match roles, tasks, and formats for the best results.
E.g.: "Act as a mindset coach. Create a summary. Show as a list."

Compare the results – remarkable difference in response quality!

Role 1: "You are a customer service representative."

Role 2: "You are Sarah, a senior customer service specialist with 8 years of experience at a premium software company. You're known for your patience, technical knowledge, and ability to turn frustrated customers into loyal advocates. You approach each interaction with genuine empathy and a solutions-first mindset."

Prompting with ChatGPT: Act as a (ROLE)

Learning new concepts – Use the 5 level technique

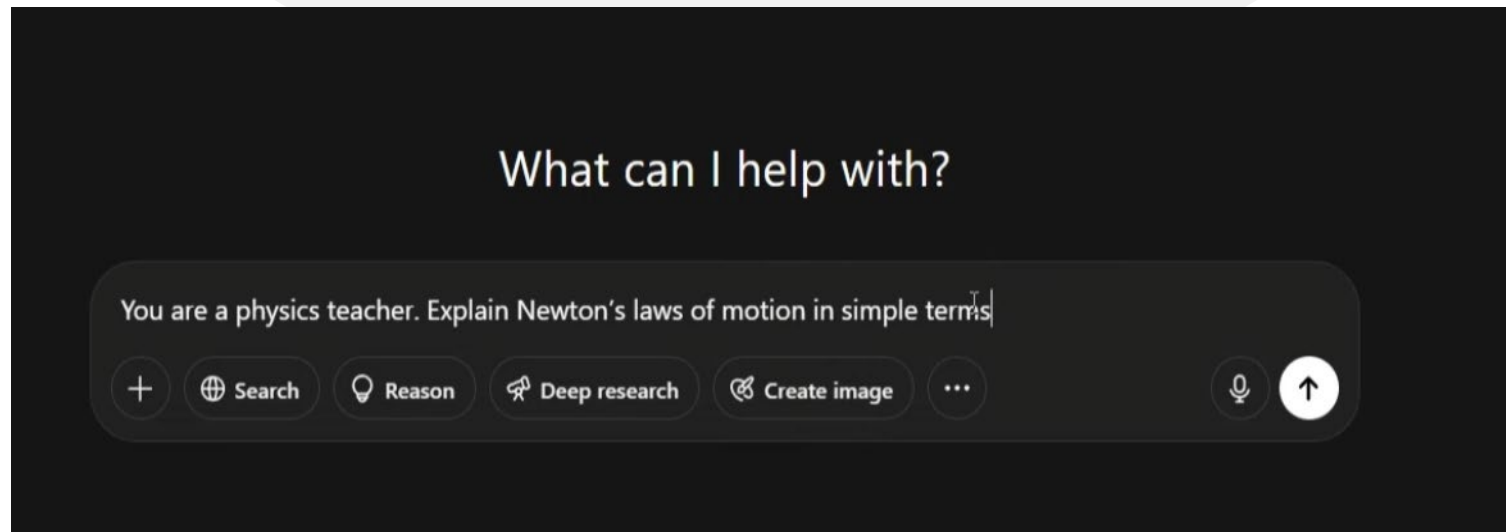
Levels:

1. 5 years old Child
2. Teenager
3. College Student
4. Graduate Student
5. Expert

Explain the following text as if I was 5 years old. Explain it like I'm 5.Text:

This is a review regarding different types of cancer treatments. We aimed at analyzing the tumor microenvironment and the recent trends for the therapeutic applications and effectiveness for several kinds of cancers. Traditionally the cancer treatment was based on the neoplastic cells....(shortened for brevity)...

Prompting with ChatGPT: Act as a (ROLE)



Prompting with ChatGPT: Create a (Task)

- Essay
- Recipe
- Article
- Ad copy
- Headline
- Analysis
- Blog Post
- Summary
- Sales Copy
- Video Script
- SEO Keywords
- Book Outline
- Email Sequence
- Social Media Post
- Product Description

Tip:

When prompting ChatGPT, mix and match roles, tasks, and formats for the best results.
E.g.: “Act as a mindset coach. Create a summary. Show as a list.”

Prompting with ChatGPT: Show as (Format)

Summaries & Communication

- Summary
- FAQ
- Step-by-step guidance
- Performance Review
- Proposal
- Resume / CV

Business & Planning

- Contract
- Business Case
- Project Plan
- Product Launch Plan
- Event Plan
- Schedule
- Itinerary
- Gantt Chart

Marketing & Content

- Ad Copy
- Headline
- Sales Copy
- Product Description
- Social Media Post
- Email Sequence
- Blog Post
- Article
- Essay
- Video Script
- Book Outline
- Team building activities

Data & Analysis

- Table
- List, hierarchical lists (e.g. list of Disney characters)
- Spreadsheet
- Graphs

Formats & Exports

- CSV files
- Excel workbooks
- PDF
- HTML
- JSON
- XML
- Mermaid Diagrams
- Markdown
- Rich Text
- Plain Text File
- Presentation Slides
- Code/Script

Prompting with ChatGPT: Act as, with knowledge focus and tone

Role	Response Style	Knowledge Focus	Tone
Technical Expert	Detailed, precise	Deep technical knowledge	Authoritative, analytical
Friendly Teacher	Step-by-step, encouraging	Educational Clarity	Warm, supportive
Business Consultant	Strategic, practical	ROI and efficiency	Professional, results-focused
Creative Writer	Imaginative, engaging	Narrative, emotion	Inspiring, artistic

Prompting with ChatGPT: Verb Power for Prompt Engineering

Use action-oriented verbs to precisely instruct an LLM what to do with your text or data.

Prompting with ChatGPT: Verb Power for Prompt Engineering

Create, Expand & Enrich

Add • Adapt • Amplify • Create • Design • Demonstrate •
Diversify • Elaborate • Elevate • Enhance • Enliven / Energize •
Enrich / Embellish • Generate • Illustrate • Innovate • Integrate •
Prepare • Write

Prompting with ChatGPT: Verb Power for Prompt Engineering

Analyse & Transform

Analyse • Arrange • Automate • Expand • Explain • Extract •
Find • Formalize • Humanize • Illuminate • Informalize •
Neutralize • Operate • Organise • Paraphrase • Reframe •
Reinterpret • Simulate • Transform

Prompting with ChatGPT: Verb Power for Prompt Engineering

Refine & Streamline

Condense • Downplay / Soft-pedal • Edit • Emphasize /
Reiterate • Exaggerate • Glamorize • Manage • Modernize •
Reduce • Reuse • Sensationalize • Simplify • Streamline •
Summarize • Synthesize • Refine

Prompting with ChatGPT: Tone Matters

Selecting (or combining) tones steers the voice of your AI-generated output.

Tell the model “**Respond in a *playful yet respectful* tone**” to match the vibe you need.

Prompting with ChatGPT: Tone Matters

Positive & Uplifting Tones

Amused • Cheerful • Cooperative • Curious • Enthusiastic •
Humorous • Inspirational • Light • Optimistic • Persuasive •
Playful • Respectful • Witty

Prompting with ChatGPT: Tone Matters

Neutral & Informational Tones

Casual • Clear • Conversational • Formal • Informal •
Matter-of-fact • Neutral • Quizzical • Serious • Sincere

Prompting with ChatGPT: Tone Matters

Confrontational & Negative Tones

Aggressive • Angry • Critical • Gloomy • Ironical • Irreverent • Mocking • Pessimistic • Pompous • Resigned • Sad • Sarcastic • Suspicious

Prompting with ChatGPT: Tone Matters

Mix & Match Examples

- Clear + Persuasive → executive brief that drives action.
- Witty + Informal → social-media post with personality.
- Respectful + Serious → formal letter that still feels human.

Tip: Start prompts with “Using a [tone] tone, ...” and the LLM will style its response accordingly.

Prompting with ChatGPT: Context matters

- **Context = AI's script & backstory** → turns generic replies into tailored solutions
- Analogy: Getting directions from a local vs. a tourist
 - Local knows construction, traffic, shortcuts
- The richer the context, the smarter and faster the answer

Prompting with ChatGPT: Building Rich Context

- **Situational** – What's happening right now?
- **Historical** – What led to this moment?
- **Stakeholder** – Who's involved & what do they care about?
- **Constraint** – Limits, requirements, resources

Prompting with ChatGPT: Prompt Templates

Deep Dive Into a Topic

Prompt: "Act as an expert on [subject], explain the most important concepts, and provide real-world examples to illustrate each. Then, give me a step-by-step guide to master this topic in the next 30 days."

Prompting with ChatGPT: Prompt Templates

Personalized Learning Plan

Prompt: "Help me design a personalized learning plan for mastering [subject]. Break it down into daily learning tasks, recommended resources, and practical exercises I can do to build my skills."

Prompting with ChatGPT: Prompt Templates

Critical Thinking Challenge

Prompt: "Challenge me with a series of thought-provoking questions on [subject]. After each question, provide feedback on my answer and suggest how I can improve my critical thinking on this topic."

Prompting with ChatGPT: Prompt Templates

Socratic Dialogue

Prompt: "Guide me through a Socratic dialogue on [concept]. Ask questions that will help me uncover the deeper layers of this idea and refine my understanding step-by-step."

Prompting with ChatGPT: Prompt Templates

Historical Analysis

Prompt: "Provide an in-depth analysis of how [historical event] impacted [field of study]. Draw parallels to modern-day applications and discuss how we can learn from this event."

Prompting with ChatGPT: Prompt Templates

Roleplay as a Mentor

Prompt: "Assume the role of a mentor in [field]. Offer advice, insights, and actionable tips to someone starting in this domain, including common pitfalls and how to overcome them."

Prompting with ChatGPT: Prompt Templates

Content Creation Templates

Role: You are [content type] specialist...

Context: [Brand voice, audience, goals]...

Task: Create [specific content type] that [objective]...

Examples: [Brand voice examples]...

Output: [Format and length specifications]...

Prompting with ChatGPT: Prompt Templates

Analysis Templates

Role: You are [domain expert] analyst...

Context: [Current situation and available data]...

Task: Analyze [specific subject] and identify [key insights]...

Examples: [Sample analysis structure]...

Output: [Report format with specific sections]...

Prompting with ChatGPT: Prompt Templates

Strategic Planning Templates

Role: You are [strategic role] with [industry experience]...

Context: [Company situation, goals, constraints]...

Task: Develop [specific plan type] for [objective]...

Examples: [Strategic framework examples]...

Output: [Plan structure with timeline and metrics]...

Top ChatGPT Prompts

Simply Complex Information	"Break down the [topic] into smaller, easier-to-understand parts. Use analogies and real-life examples to simplify the concept and make it more relatable."
Train It To Learn Your Writing	"Analyze the text below for style, voice, and tone. Create a prompt to write a new paragraph in the same style, voice, and tone [insert your text]."
Learn From Mistakes	"I made a mistake while practicing [skill]. Can you explain what went wrong and how I can avoid making the same mistake in the future?"
Apply Your Knowledge	"Use your knowledge of [topic] to solve a real-world problem. Explain your thought process and share your solution."
Connect With Others	"Connect me with a community of learners and experts in [topic]. How can I join a forum, social media group, or other online community to share my knowledge and learn from others?"
Memorize Key Information	"What are the most important facts, dates, or formulas related to [topic]? Help me create a memorization technique to remember them easily."

Sample ChatGPT Prompts

Pareto Analysis + A/B Testing	<p>"Act as a growth strategist. For an AI-driven mental wellness platform, first use o3 to apply the Pareto Principle: identify the 20 % of features driving 80 % of user engagement and retention.</p> <ul style="list-style-type: none"> ✓ Design 3 A/B test plans that validate those features (hypotheses, key metrics, sample sizes). ✓ Find 3 case studies of digital health or wellness apps that ran similar tests. ✓ Highlight 2 common pitfalls when interpreting A/B results in health-tech contexts.
Mind Mapping + SWOT Analysis	<p>"Act as an innovation consultant. For an AI-driven mental wellness platform, first use o3 to build a detailed mind map of: 1) Core product modules (e.g., mood tracking, guided exercises) 2) User personas and their pain points 3) Ecosystem partners (therapists, insurers, device makers)"</p> <p>Then switch to o4-mini-high (with Search) to perform a SWOT analysis:</p> <ul style="list-style-type: none"> ✓ Cite 2 industry reports or expert quotes for each strength/weakness. ✓ List 3 emerging market opportunities (e.g., VR therapy integration). ✓ Identify 2 external threats (regulatory shifts, new entrants).
SCAMPER + Competitive Benchmarking	<p>"Act as a product designer. For an AI-driven mental wellness platform, first use o3 to run the SCAMPER checklist (Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse) and ideate one enhancement per step."</p> <p>Then hand off to o4-mini-high (with Search) to:</p> <ul style="list-style-type: none"> ✓ Identify 3 leading competitors in digital mental-health. ✓ Benchmark each SCAMPER idea against competitor offerings (feature gaps, UX differences). ✓ Propose 2 strategic tweaks to outpace their weaknesses.
Scenario Planning + Sensitivity Analysis	<p>"Act as a strategic forecaster. For an AI-driven mental wellness platform, first use o3 to draft 3 plausible 5-year scenarios (e.g., "Regulatory Tightening," "Tech-Led Adoption,") and outline their key drivers."</p> <p>Then switch to o4-mini-high (with Search) to:</p> <ul style="list-style-type: none"> ✓ Gather historical analogues or data points that support each scenario. ✓ Perform sensitivity analysis on critical variables (user growth %, enterprise contract value). ✓ Calculate ROI impact ranges for each scenario branch to inform strategic priorities.
Pomodoro Technique	<p>Act like an expert productivity coach. You have been helping individuals and organizations maximize efficiency and achieve their goals. You specialize in techniques such as the Pomodoro Technique and the 80/20 Principle (Pareto Principle) to ensure optimal results with minimal effort. ### Objective ###</p> <p>Help me apply the Pomodoro Technique to focus on the 20% of activities that will yield 80% of the results for the following goal:</p> <p>[GOAL]</p> <p>### Objective ###</p>

ChatGPT Deep Research – An Example Workflow

Prompt (Context)	Methodology Applied
“As a Big Four consultant, execute a DMAIC-driven Deep Research workflow in ChatGPT—Define, Measure, Analyze, Improve, and Control data on ‘B2B SaaS future vs. the new wave of vibe coding’ —structuring findings in MECE-compliant categories into a concise executive summary.”	DMAIC Phases D • Clarify scope, success metrics, stakeholders M • Identify data sources ↔ KPI baselines A • Detect root-cause churn/drivers I • Propose prioritized improvements & experiments C • Define dashboards & guard-rails to sustain gains

Key Enhancers

1. **MECE framing** → ensures findings are Mutually Exclusive, Collectively Exhaustive for crisp exec summaries.
2. **Cascading search** → each phase triggers deeper, more focused queries (ChatGPT web search → literature → subject-matter interviews).
3. **Evidence matrix** → tag every insight to source quality & recency for auditability.
4. **Time-boxed sprints** → 1-day cycles per DMAIC step; keeps momentum in advisory engagements.

Outcome: a data-backed, action-ready brief on how B2B SaaS can capture “vibe-coding” trends—complete with KPIs, risk controls, and next-step experiments ready for board-level review.

ChatGPT Advanced Reasoning

Anatomy of a Reasoning Prompt

I want a list of the best medium-length hikes within two hours of San Francisco.

Each hike should provide a cool and unique adventure, and be lesser known.

For each hike, return the name of the hike as I'd find it on AllTrails, then provide the starting address of the hike, the ending address of the hike, distance, drive time, hike duration, and what makes it a cool and unique adventure.

Return the top 3.

Be careful to make sure that the name of trail is correct, that it actually exists, and that the time is correct.

--

For context: my girlfriend and i hike a ton! we've done pretty much all of the local SF hikes, whether that's presidio or golden gate park. we definitely want to get out of town -- we did mount tam pretty recently, the whole thing from the beginning of the stairs to stinson - it was really long and we are definitely in the mood for something different this weekend! ocean views would still be nice. we love delicious food. one thing i loved about the mt tam hike is that it ends with a celebration (Arriving in town to breakfast!) The old missile silos and stuff near Discovery point is cool but I've just done that hike probably 20x at this point. We won't be seeing each other for a few weeks (she has to stay in LA for work) so the uniqueness here really counts.

ADVANCED REASONING PROMPTING

1. Goal

This is the primary objective of the prompt. It tells the AI what you want it to achieve.

2. Return Format

This section defines how the information should be presented back to you. It's a blueprint for the AI's answer.

3. Warnings

Warnings (or constraints) tell the AI what to watch out for, they act like guardrails.

4. Context Dump

This is where you provide extra background information that helps the AI tailor the answer to your specific situation or preferences.

Image Prompting Keywords

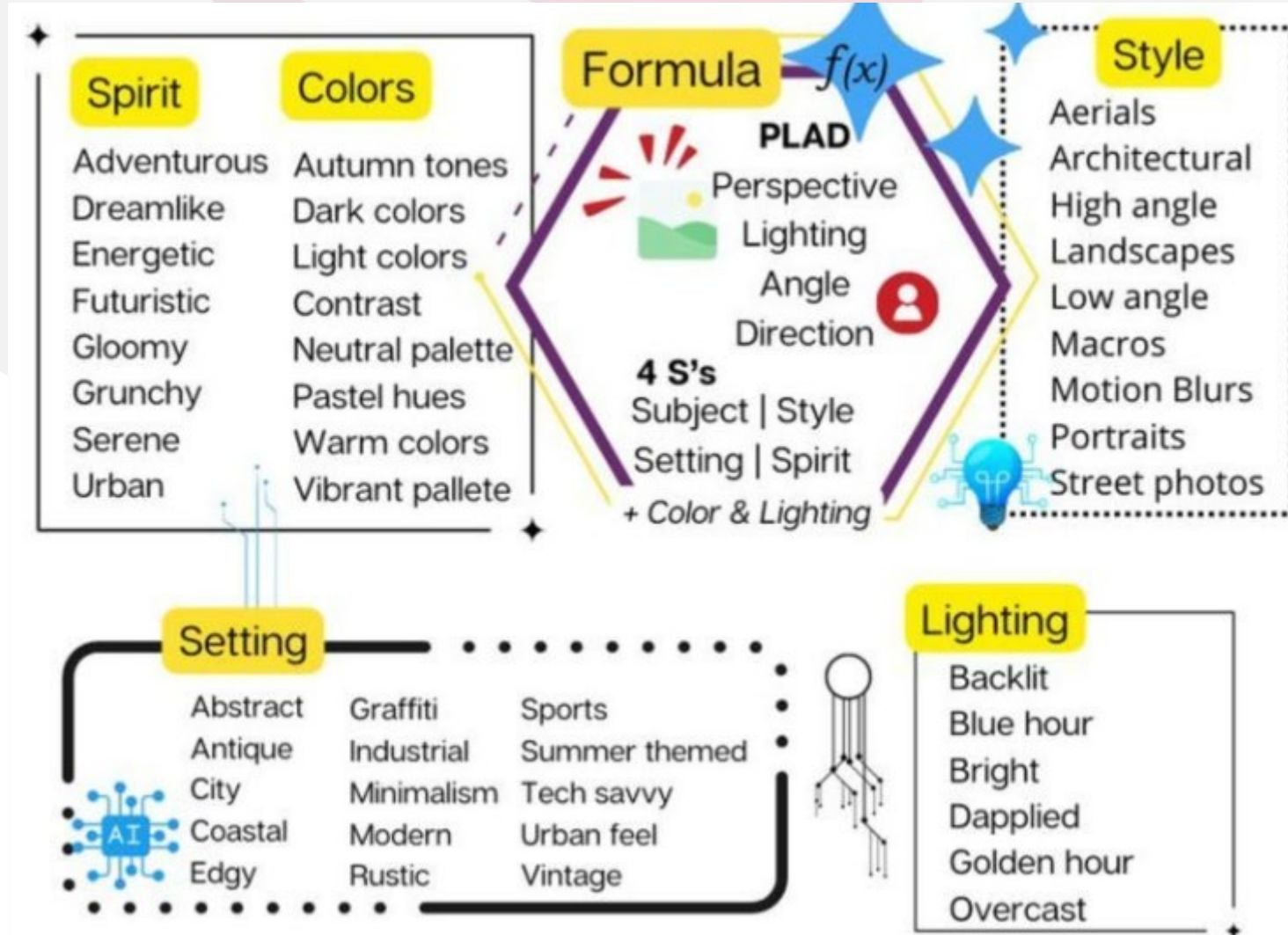


Image Prompting

What can I help with?

Create image of an AI robot



Search



Reason



Deep research



Create image



Create an image of a magazine cover of cute animals with headlines and text

Create an image for a garden-themed birthday party invitation

Create an image of an astronaut with an inflatable duck on Mars

Create an image of a tutorial for cooking pasta

Prompt Techniques at a Glance

- **Goal:** Pick the right way to talk to an LLM so it returns the result you need, first time.
- **Core Menu:**
 - Zero-Shot
 - Few/Multiple-Shot
 - Chain-of-Thought (CoT)
 - Self-Consistent / Tree-of-Thought (advanced)
 - Role- & Instruction-based patterns
- **How to choose:** match task complexity → guidance depth → cost / latency trade-off.

Zero-Shot Prompting (“Just ask”)

- **What:** One clear instruction, no examples.
- **When it shines:**
 - Straight-forward transforms (translate, summary, rewrite).
 - Quick explorations / first-pass probes.
- **Strengths:** Fast, cheap, least engineering overhead.
- **Watch-outs:** Ambiguity → accuracy drop on nuanced or multi-step tasks.
- **Mini-template:**
 - Task: <action verb + object>
 - Constraints: <tone, length, audience>
 - Output format: <bullet list / JSON / ...>

Zero-Shot Prompting (“Just ask”)

Give me the pros and cons

what are a few different ways that I can
implement this db connection logic. give me
the pros and cons of each strategy. #file:db.ts |



Few-/Multiple-Shot Prompting (“Learn by Example”)

- **What:** 2-5 input→output pairs show the pattern; model matches it on new input.
- **When to use:**
 - You need stylistic consistency (email tone, brand voice).
 - Precise structured outputs (tables, JSON).
- **Strengths:** Big boost in accuracy & format fidelity without model fine-tune.
- **Trade-offs:** Prompt grows with each example → higher token cost; stale examples can mis-lead.
- **Rule-of-thumb:**

Task Type	Examples Needed
Simple Classification	2-3
Custom Format / Style	4-5
Complex reasoning	5-7 (then prefer CoT)

Chain-of-Thought Prompting (“Show your work”)

- **What:** Ask the model to reason step-by-step before giving the answer.
- **When it excels:** Arithmetic word problems, logic puzzles, multi-hop Q&A, policy analysis.
- **How to trigger:** Append “Let’s think step by step.” / “Ask me yes/no questions” or provide 1-2 worked examples.
- **Strengths:** Dramatically lowers logical errors; transparent reasoning for review.
- **Limitations:** Verbose output; may reveal internal reasoning you prefer to hide in production.
- **Quick pattern:**
 - Q: <problem>
 - A: Let's think step by step.
 - ...
 - Final answer: <concise reply>

Chain-of-Thought Prompting (“Show your work”)

Ask me a series of yes/no questions



burkeholland

@workspace propose a file/folder structure for this project. Ask me a series of yes/no questions that will help you provide a better recommendation.



Workspace Generating..

> Used 7 references

To propose a suitable file/folder structure for your Express and TypeScript project focused on displaying electric vehicle data, I'll need to understand your preferences and requirements better.

Chain-of-Thought Prompting (“Show your work”)

Stepwise

help me refactor the code in
`#file:vehiclesService.ts` . Go one
step at a time. Do not move to
the next step until i give the
keyword "next". Begin.



Self-Consistency & Thought (“Many paths, one answer”)

- **Self-Consistency:** Run the same CoT prompt N times with temperature>0; majority-vote the answers → higher reliability for high-stakes calculations.
- **Tree-of-Thought:** Model explores multiple reasoning branches, scores them, chooses the best. Great for planning, creative storylines, strategy games.
- **Cost note:** Expect 3-10× tokens & latency; reserve for critical accuracy or creative breadth.

Role- & Instructional Patterns

- **Role Prompting:** “You are a veteran CFO...” instantly aligns tone & expertise.
- **Instructional Blocks:** Context → Goal → Constraints → Deliverable. Works in zero- or few-shot mode.
- **Use cases:** Expert advice, compliance writing, domain-specific QA, persona-driven chatbots.
- **Tip:** Combine with Few-Shot to lock voice + format in regulated industries.

Choosing the Right Technique

Task Complexity	Examples Needed?	Reasoning Needed?	Best Technique
Simple transform (format, language)	No	No	Zero-Shot
Styled copy / data extraction	Yes (2-5)	Low	Few-Shot
Numerical logic, policy analysis	Optional	Yes	CoT (+Self-Consistency if critical)
Open-ended planning / creativity	Optional	Branching	Tree-of-Thought
Domain-expert consultation	Role block	Low-Mid	Role + Zero/Few-Shot

Evaluate the Quality of ChatGPT Output

Prompt:

“Act like an editor. Score this email draft on tone, clarity, and persuasiveness (1–5), and suggest one improvement for each.”

Draft: “Hey, just checking if you saw my last message?”

You’ll get:

1. A score (e.g., Tone: 2/5)
2. Feedback (“Sounds too casual”)
3. A fix (“Try: ‘Following up on my previous note , any thoughts?’”)

Why This Works:

1. Creates a feedback loop
2. Makes output more polished
3. Saves you back-and-forth


Prompt Examples – Research

- Legal Research – e.g. finding loopholes - Legal Loopholes - *“X found freedom thanks to ChatGPT. It uncovered a gap in the law.”*
- Market Research
 - Benchmark 10 competitors
 - Find potential clients
 - Summarize thousands of customer reviews into insights
- Travel Plans
 - How long do I have between when my train arrives in Amsterdam and the hotel’s check-in time?”

Prompt Examples – Research

- Legal Research
 - Interpretation of contracts, bills etc.
- Medical Diagnosis & Interpretation
- Market Research
 - Benchmark 10 competitors
 - Find potential clients
 - Summarize thousands of customer reviews into insights
- Travel Plans
- Psychological Profiling – predict how people will behave
- Strategic Research
 - Produce a list of possible outcomes

Prompt Examples – Medical Reports

Help me understand the results of my blood test. I'll give you small sections at a time. They will be little screenshots. First transcribe the important information into text, and then help me interpret it ok? 

Sure! Upload the first screenshot, and I'll transcribe the relevant information and help you interpret it.

LDL Particle Number TM	309	01	e+Lipids+IR (Cont.)	179
Lipids TM			6.0	
LDL-C (NHL Calc) TM	108		41.1	
			21.3	
			9.6	
			e Score TM	<25
HDL-C TM	52			
Triglycerides TM	58			
Cholesterol, Total TM	168			
LDL and HDL Particles TM	no n			

Ok these are my Lipids panel

Prompt Examples – Carer Coach

Why Let Gen AI Coach Your Career?

- Traditional coaching averages US \$272/hr—AI is 24/7 and (nearly) free
- Already 65 % of job-seekers tap AI at some stage of the search
- Biggest win: breadth—seven use-cases from self-discovery to daily work fixes. Bring rich context (résumé, goals, pain-points) so the model personalises advice

Prompt Examples – Carer Coach

Discover & Brand Yourself: Essential Prompts

Stage	Try asking Gen AI...
Self-Discovery	"Can you ask me reflective questions to surface my strengths & interests?" • "Suggest career options that fit my skills in X and interest in Y."
Résumé / LinkedIn	"Write a professional summary for a [data-science] résumé." • "Review my LinkedIn summary (link) and suggest improvements; help me quantify achievements."

Prompt Examples – Carer Coach

Land the Job & Thrive: Action Prompts + Course Playbook

Milestone	High-impact prompt
Job Search	“What job-search tactics work best for cloud-security architects in Singapore?” • “Draft a warm DM to a recruiter for this opening.”
Interview / Negotiation	“Run a mock interview for a senior quant developer role and critique each answer.” • “Frame a polite salary-counter offer at S\$ X – Y.”
On-the-Job Challenges	“My manager micromanages—craft a diplomatic push-back plan.” • “Colleague takes credit for my ideas; suggest an assertive response.”

After 20 Hours With ChatGPT, I Found These 7 "Goals" To Be The Best Instructions When Asking It To Rewrite Something

1. **More persuasive:** Ask ChatGPT to rewrite your text with powerful, convincing language that will leave your readers no choice but to take action.
2. **More informative:** Ask ChatGPT to rewrite your text with rich, informative details that will leave your readers feeling educated and informed.
3. **More descriptive:** Ask ChatGPT to rewrite your text with evocative, descriptive language that paints a vivid and unforgettable picture in your readers' minds.
4. **More humorous:** Ask ChatGPT to rewrite your text with clever, comedic touches that will leave your readers laughing and entertained.
5. **More action-oriented:** Ask ChatGPT to rewrite your text with urgent, action-oriented language that will inspire your readers to take immediate action.
6. **More emphatic:** Ask ChatGPT to rewrite your text with an emphasis on the emotions and feelings of the characters or subjects you're writing about, making the reader feel and connect with the story more.
7. **More concise:** Ask ChatGPT to rewrite your text using more concise and to-the-point language, making it more direct and easy to understand for your readers.

Prompt Examples – Text Rewrite

Prompt Examples – Data Analysis

- **Convert text to a table** – “Turn this info into a table format”
- **Summarize data** – “Summarize this dataset into key insights”
- **Create pivot tables** – “How would you structure this as a Pivot Table?”
- **Automate tasks with VBA** – “Write a VBA script to clean duplicate values”
- **Generate insights** – “What are key takeaways from this dataset?”

This ChatGPT Prompt Writes Your Entire Business Plan in Minutes (Step-by-Step, With Real Projections)

Prompt Engineering (not a prompt)

Post Body:

If you're planning to launch a business and feel overwhelmed by the idea of writing a full business plan — this ChatGPT prompt can literally do 90% of the heavy lifting.

- ✓ Market analysis
- ✓ Financials
- ✓ Executive summary
- ✓ Marketing & sales strategy
- ✓ Step-by-step structure

Here's the exact prompt that turns ChatGPT into your **personal business strategist**:

Adopt the role of an expert business strategist tasked with creating a comprehensive business plan. Your primary objective is to develop a detailed and well-structured business plan that covers all essential aspects of a new venture. Take a deep breath and work on this problem step-by-step. Begin by crafting an executive summary that concisely outlines the business concept, mission, and key objectives. Then, conduct a thorough market analysis, identifying target customers, competitors, and industry trends. Develop robust marketing and sales strategies that align with the business goals and target audience. Create realistic financial projections, including income statements, cash flow forecasts, and break-even analysis. Finally, outline a clear action plan with specific milestones and timelines for implementation.

#INFORMATION ABOUT ME:

My type of business: [INSERT TYPE OF BUSINESS]

My target market: [INSERT TARGET MARKET]

My unique selling proposition: [INSERT UNIQUE SELLING PROPOSITION]

My initial investment amount: [INSERT INITIAL INVESTMENT AMOUNT]

My projected timeline: [INSERT PROJECTED TIMELINE]

MOST IMPORTANT!: Provide your output in a structured format with clear headings for each section of the business plan, using bullet points for key details within each section.

💡 Why This Works So Well:

- It forces ChatGPT to behave like a strategist, not a content generator
- It gives you a presentation-ready business plan in minutes
- It includes financial modeling and market analysis without needing Excel formulas
- You can instantly copy it into Notion, Google Docs, or Canva for pitch decks

🚀 Whether you're applying for funding, validating an idea, or just need clarity — this is the fastest way I've seen to generate a full, investor-ready business plan using AI.

Drop a comment if you want a sample output or my favorite formatting template.

Prompt Examples – Business Plans



REPOST

Prompt #7

Fear of Missing Out (FOMO) Marketing Tactics

"Utilize FOMO marketing tactics to create urgency and drive immediate action. Highlight limited-time offers, exclusive deals, or scarce inventory to motivate customers to make purchasing decisions quickly. Input: Design FOMO-based promotions or campaigns for your offerings. After you have given me this answer, ask me for my custom inputs, and then run the prompt based on that."

Prompt Examples – Marketing

9. NEGOTIATE LIKE AN EXPERT

Prompt:

What can I help with?

Channel a superhuman negotiator who's mastered psychology and strategy. I need to win [insert high-stakes situation, e.g., a salary raise, a business deal]. Craft a step-by-step script, including exact phrases, body language tips, and contingency plans for resistance. Make me feel invincible at the table.



Search



Deep research



Prompt Examples – Negotiations

Prompt Examples – Professional Headshots

"Cinematic overhead shot of me standing hands in my pockets a brick city sidewalk, wearing a red wine formal blazer. Motion blurred crowd rushes past around me. Moody lightning 35mm film look. Shallow depth of field, sharp focus on me. Ration portrait 4:3 no changing face"

Upload your picture first, of course ...

Prompt Examples – Relational Insights

"I recorded fights with my ex. ChatGPT gave me a full analysis of his manipulation tactics."

Prompt Examples – Risk Assessment

You are a credit risk analyst. Evaluate this loan application and provide:

Overall risk assessment (low/medium/high)

Key risk factors and mitigating factors

Recommended loan terms or rejection rationale

Additional information needed for the final decision

Application data: [Financial information and credit history]

Prompt Examples – Fraud Detection

Analyse these transaction patterns for potential fraud indicators:

Unusual patterns or anomalies

Risk level assessment

Recommended actions (approve/flag/block)

Additional monitoring requirements

Consider customer history, transaction context, and known fraud patterns.

Prompt Examples – MS Teams

Microsoft 365 Copilot: Teams Prompts

- Summarize Teams messages where I was @mentioned this month.
- Let's focus on the last 3 days, are there any chats or posts where I've been @mentioned that I haven't responded to and are there any required actions I've missed?
- Use AI notes from [/Meeting] to draft a follow-up email with top 3 next actions in a concise, senior-manager-friendly tone
- Create an email with a bullet point list from the meeting summary and any action items in a table with the following headings Action | Owner | Date to send to the organiser of this meeting in a concise and formal tone.
- Paraphrase this meeting [/Meeting] to send in an email answering any questions that arose from action items from this meeting [/Meeting] to send to [/Person].

Prompt Examples – MS PowerPoint

What can you do in PowerPoint?

Create and Design Slides Faster

- Generate entire presentations from a prompt or Word document
- Summarize long documents into concise slides
- Suggest layouts and designs based on your content
- Apply consistent formatting and design themes automatically

Write and Refine Content

- Draft speaker notes or talking points for each slide
- Rewrite or improve slide text for clarity, tone, or impact
- Translate content into different languages
- Summarize bullet points or expand them into full explanations

Visual Enhancements

- Suggest relevant images, icons, or SmartArt to match your content
- Generate diagrams or charts from data or descriptions
- Create visual metaphors or storytelling visuals

Data and Insights

- Turn data into visuals like charts or infographics
- Explain complex data in simple terms
- Highlight key insights from tables or spreadsheets

Presentation Coaching

- Provide feedback on slide clarity and structure
- Suggest improvements for storytelling and flow
- Help with timing and pacing for delivery

Prompt Examples – MS Excel

A few fun prompts!

- Create a column that shows the percent difference between Q1 and Q2 revenues.
- Create a column that combines data from the first and second columns into one, with a space between the data.
- Add a column to extract the month from the date.
- Write a formula for the average of each column.
- Add a pivot table grouped by category as determined in column A.
- Write a lookup formula to match [product name] to [product sales].
- Calculate the percentage increase from cell A2 to cell B2.
- Remove all extra spaces in this sheet.
- Highlight duplicate values in yellow in column A.
- Sort the data in column C from largest to smallest.
- Format the numbers as a date with the whole month spelled out and four digits for the year.
- Highlight the five lowest values in the column.
- Bold the five highest values in the column.
- Apply a red-yellow-green color scale to the column.
- Highlight cells containing the words “Oral Health” in green.
- Create a bar chart that shows growth by region.
- Show total sales revenue by quarter as a line chart.
- Create a pie chart showing a breakdown of students from the graduating class attending colleges.
- Generate a bar graph showing Q1, Q2, and Q3 revenue by project.
- Show a breakdown of revenue by design projects.
- Analyze the current project schedule based on materials and labor to identify trends or patterns that could inform optimization.
- Show me insights from this dataset.
- How many fidget spinners did we sell in April?

Prompt Examples – MS Outlook

Microsoft 365 Copilot: Outlook Mailbox Prompts

- Create an inbox rule to categorize all emails from /[person] as red and bold.
- Flag the email from [sender] as high priority.
- Find emails from [person] with attachments related to [subject].
- Can you help me draft an email to [recipient]?
- Move emails from [person] to [folder].
- Summarize email messages where I was @mentioned this week.
- Draft an email regarding [subject]. Keep the tone [casual/formal etc]. Refer to /[source or document] for details.
- Summarize this email about [topic] in 5 bullet points.

Prompt Examples – MS Word

What can you do in Word?

Create content

Edit content

Analyze and summarize
content

Create templates



Microsoft 365
Copilot

Researcher



Microsoft 365
Copilot

Analyst

CERTIFICATE OF ACHIEVEMENT

PRESENTED TO

INSERT NAME HERE)

In recognition of the successful completion of the
Think Smart, Prompt Smarter Course:
A course exploring practical applications of
artificial intelligence.

Awarded this day, August 1, 2025

End of Course – Course Certificate

Create a diploma with the text:
"Certificate of Achievement
Presented to [INSERT NAME HERE]
In recognition of the successful
completion of the Think Smart,
Prompt Smarter Course: A course
exploring practical applications of
artificial intelligence. Awarded this
day, August 1, 2025"

Access to the Slides

These slides are available from <https://rkt.sg/tsps2>.

Just scan the below QR Code

