PINK PROGRAMMING + THE HOUSE

Summer Finale: Get Vibing

Practical AI

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WHY THIS WORKSHOP?



- Artificial Intelligence (AI) is everywhere
- Most people use it without understanding it
- AI tools are powerful, but they can also do a lot of harm
- Better understanding = better decisions
- AI should not replace thinking

WHAT AI ACTUALLY IS



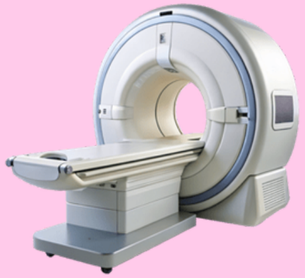






alexa





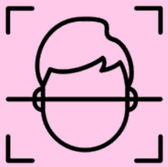


















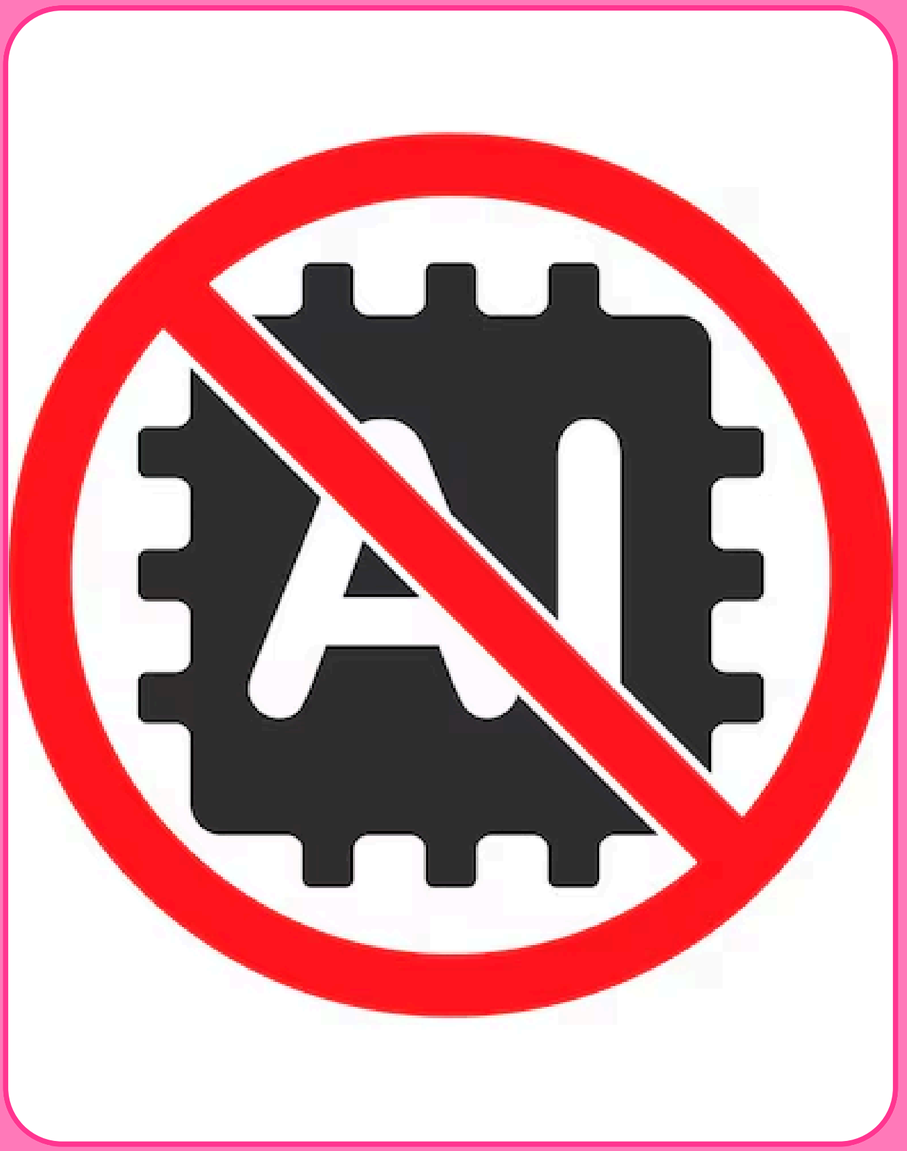
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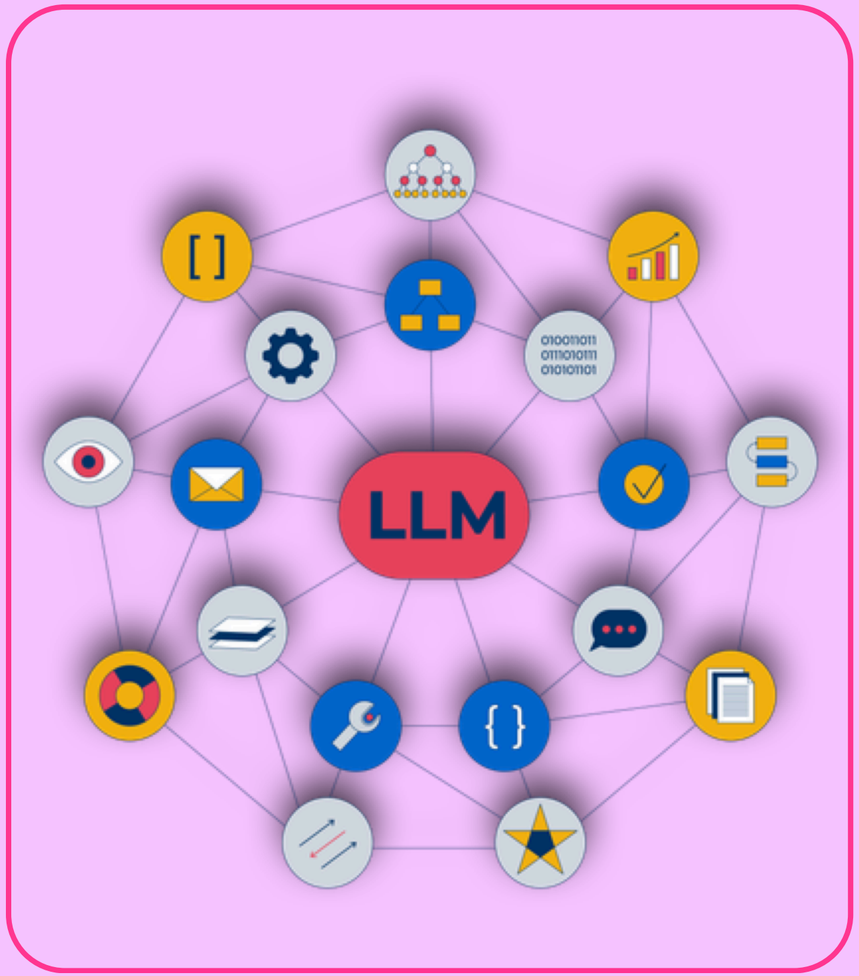


WHERE AI IS NOT THE RIGHT TOOL

- Moral decisions
- Legal accountability
- Medical diagnosis without validation
- When data quality is poor
- When explainability is required but missing



WHAT IS A LARGE LANGUAGE MODEL (LLM)?



- Text generation tool
- Technology trained on massive text data
- Predicts the next word
- Does not “understand” like humans
- Generates responses based on probability

CLOSED-SOURCE

OPEN-SOURCE

CHOOSING THE RIGHT LLM FOR THE TASK

FOR REASONING & STRUCTURED ANALYSIS

- Drafting an important document
- Making a complex decision
- Working with structured output
- Understanding nuanced topics



CLOSED-SOURCE

- OpenAI o3 / o3-Pro
- Anthropic Claude 4.7 Opus
- Anthropic Claude 3.7 Sonnet
- Google Gemini 3.1 Pro

CLOSED-SOURCE

- DeepSeek-R1
- Alibaba Qwen3-235B (or QwQ)
- Kimi K2 / K2.5 Thinking

CHOOSING THE RIGHT LLM FOR THE TASK

FOR CODING



- **Blueprinting and bug hunting:**
  - **OpenAI o3**
  - **DeepSeek-R1**
- **Writing clean, reliable code:**
  - **Anthropic Claude 3.7 Sonnet**
  - **Claude 4.7**
- **For turning sketches into real websites:**
  - **v0 by Vercel**
  - **Google Gemini 3.1 Pro**

CHOOSING THE RIGHT LLM FOR THE TASK

FOR SPEED & LOWER COST

- Summarization
- Simple drafts
- Simple chat assistants
- Simple data formatting
- Basic content transformation
- Classification and tagging
    -



- OpenAI GPT-4o-mini
- Google Gemini 1.5 Flash
- Claude 3.5 Haiku
- Meta Llama 3.1 8B

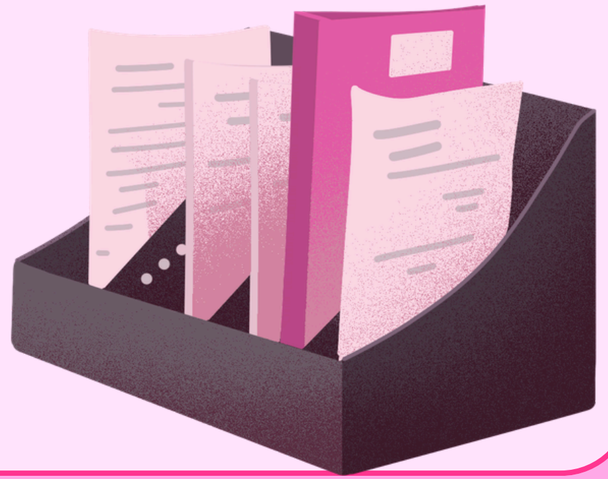
CHOOSING THE RIGHT LLM FOR THE TASK

FOR PRIVACY / LOCAL DEPLOYMENT

ANALYSING SENSITIVE INTERNAL DOCUMENTS

- Financial reports before public release
- Legal contracts under negotiation
- Patient records in healthcare settings
- HR performance reviews
- Proprietary research data
- Government documents
- Security-related documentation etc.

- DeepSeek-R1 (14B or 32B)
- Meta Llama 3.3 (70B)
- Mistral Large 2
- Microsoft Phi-4



CHOOSING THE RIGHT LLM FOR THE TASK

FOR MULTILINGUAL TASKS



- High-quality translation
- Cross-lingual content creation
- Tone and cultural adaptation
- Cross-language summarization
- Multilingual narrative comparison
- Market-specific social media adaptation

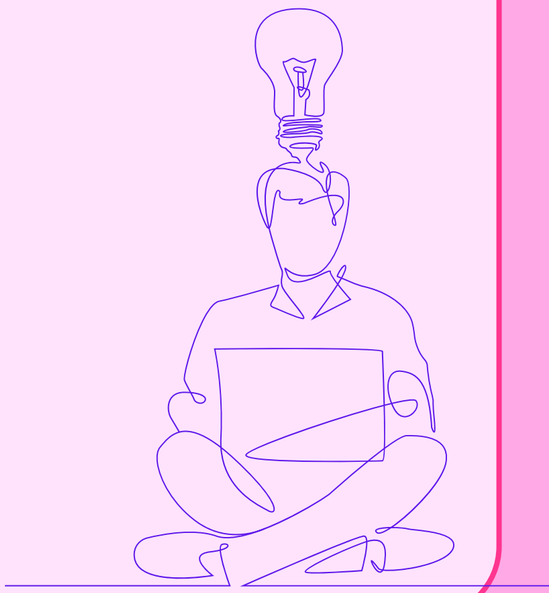
- Claude 3.7 Sonnet
- Google Gemini 3.1 Pro
- DeepL
- Cohere Command R+
- Mistral Large 2

CHOOSING THE RIGHT LLM FOR THE TASK

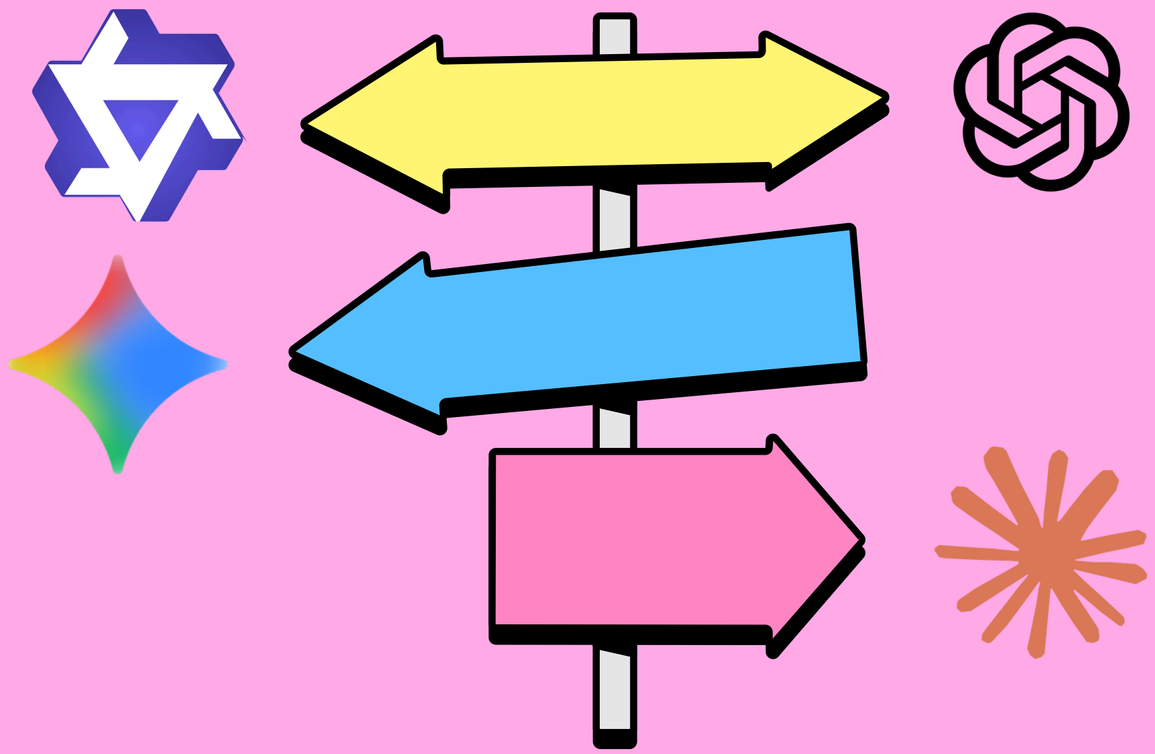
BRAINSTORMING

- Workshop & design ideas
- Startup naming & positioning
- Marketing campaign concepts
- Research question generation
- Product feature exploration
- Content & social media ideas

- Anthropic Claude 3.7 Sonnet
- OpenAI o3
- Google Gemini 3.1 Pro
- Perplexity



QUESTION BEFORE CHOOSING A MODEL



- What level of reasoning is needed?
- How accurate must this be?
- Is privacy important?
- What is the budget?
- Is this high-stakes?

MODEL SELECTION IS A TRADE-OFF DECISION!!!!

THE 4 GOLDEN RULES OF TALKING TO AI

- **Rule 1: Give it a Role**
- **Rule 2: Give it Context**
- **Rule 3: Give it Constraints**
- **Rule 4: Set the Output Format**

Bad Prompt (No Rules): "Write an email about our new software update."

The Perfect Prompt (Using the 4 Rules):

- **[Role]:** Act as a friendly customer service manager.
- **[Context]:** Our small business is launching a software update tomorrow that fixes a major login glitch. We need to tell our existing clients so they aren't surprised.
- **[Constraints]:** Keep it under 150 words. Use a warm, reassuring tone. Avoid technical tech jargon.
- **[Output Format]:** Provide a short email layout with 3 clear, bulleted steps on how users can log back in.

COMMON PROMPTING MISTAKES

- **Being vague**
- **Asking multiple tasks at once**
- **No output structure**
- **No constraints**
- **Blind trust in output**

- **Polite Prompt (wastes 15 tokens):** "Hi there, if you have a moment, could you please summarize this report? Thanks!"
- **Efficient Prompt (uses 2 tokens):** "Summarize report"

Be clear, be specific, and review the result critically.

Tokens	Characters
94	382

We're no strangers to love
You know the rules and so do I (do I)
A full commitment's what I'm thinking of
You wouldn't get this from any other guy
I just wanna tell you how I'm feeling
Gotta make you understand
Never gonna give you up
Never gonna let you down
Never gonna run around and desert you
Never gonna make you cry
Never gonna say goodbye
Never gonna tell a lie and hurt you

Text Token IDs

REAL-LIFE PROMPTS

WEAK: “Write an email.”
STRONGER: “Act as a project manager. Write a polite 150-word email to a colleague who missed a deadline. Keep the tone professional but supportive, and clearly state the new deadline.”

WEAK: “Help me plan a trip.”
SRONGER: “Suggest a 3-day weekend itinerary in Rome for two adults who enjoy history and good food. Include budget-friendly options and public transport tips.”

WEAK:“Summarize this.”
STRONGER: “Summarize this article in 5 bullet points for someone with no background knowledge in social studies. Focus only on the main arguments.”

ETHICAL CONSIDERATIONS

- Bias and fairness
- Accountability and responsability
- Transparency



- Job displacement
- Privacy concerns
- Weaponization

THE TRUE COST OF AI: AI IS NOT “FREE”, EVEN WHEN ACCESS APPEARS FREE.



- Energy consumption
- Water used for data center cooling
- Hardware manufacturing and infrastructure
- Financial cost per request

EFFICIENCY MINDSET



USE LLMS :

- Save meaningful time
- Improve quality
- Reduce cognitive overload
- Enable something previously impossible

DON’T USE LLMS :

- Trivial tasks
- Replacing thinking
- Avoiding learning

TAKEAWAYS

AI is a tool, not a replacement for thinking

Choose the right model for the task.

Better prompts lead to better results.

Every prompt has a cost.



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