# Bits and bytes (and bits and bobs)

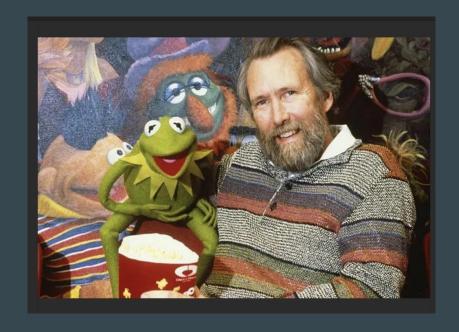
a "miscellaneous" discussion of AI topics as of February 2025



Feel free to follow along! https://tinyurl.com/aipdtime

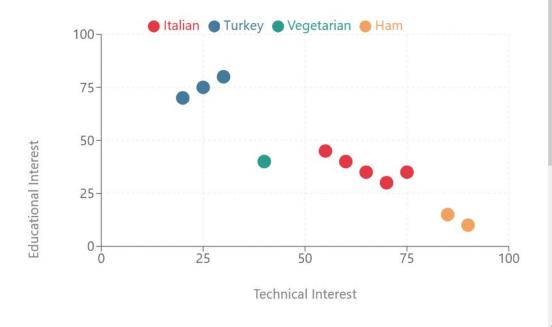
# Today's Discussion is about LLMs – or "Llamas"





#### **The Culinary AI Question Matrix**

(A completely fictional correlation between lunch choices and AI interests)







#### Culinary Crystal Ball: How Lunch Predicts AI Questions

- \* \*\*Italian Diners\*\*: Philosophical thinkers who ask about societal impact, ethics, practical tools, and plagiarism concerns
- \* \*\*Turkey Selectors\*\*: Education-focused pragmatists interested in the future of learning, employment impacts, and AI detection
- \* \*\*Vegetarian Option\*\*: Specialized technical interest in security and cloud computing resources
- \* \*\*Ham Enthusiasts\*\*: Either content to observe or interested in technical aspects like building their own AI
- \*Note: This analysis is entirely whimsical a perfect example of correlation without causation!\*

# A More Meaningful "Grouping" – Semantic (Meaning)

all the linguistics I'll cover today:

- **syntax** is the structure of what you say
- **semantics** is the meaning of what you say

So, **Semantic Clustering** is "Group by Meaning", and a llama will know what you mean if you use either term.

Llamas mean we no longer have to remember a formal term, if we can express the idea.

#### The Petting Zoo – Llama Basics & Tools

"What is the most user-friendly and accurate AI bot?"

"How could I go about creating my own AI? Maybe for simple tasks"

"Please share about good resources to learn AI for security and cloud computing"

# Keeping the Hay Clean – Academic Integrity & IP

"Is it easy to detect when a paper is written by AI?"

"How AI writes information in a way that's detectable by plagiarism checkers"

"How to protect your works and identity from thievery"

## Llama Llearning – Education & Learning Applications

"How can I use AI to help me study during the nursing program? What is the best way to use AI for studying?"

"What will the future look like as far as education with AI technology being developed and implemented?"

"What classes are available to prepare for AI in the workplace"

## Beyond the Petting Zoo – Societal Impact, Ethics

"How does AI impact society, how is it more beneficial than harmful?"

"What are ways that AI isn't beneficial to our society?"

"Where is AI going in terms of employment?"

#### Now that we have some questions...

Let's talk about how to *ask* them, and *evaluate* the answers.

My Three-Point Question Asking Technique

三点質問法 (San-Ten Shitsumon-Hō)

This translates to "Three-Point Question Technique" in Japanese and has the formal, disciplined feel of a martial arts kata name.

(Why did I include this? To point out that sometimes, the best way to remember something might make sense *only to you*. Just don't try to teach that version!)

first I want to level set and tell me if the phrasing should be updated

Those three elements make for a strong foundation when teaching good question-asking practices. I like that you're focusing on the conversational aspect rather than technical "prompt engineering" - it makes the skill much more transferable and intuitive.

Your three points are solid, but I think we can refine the language slightly to make them even more accessible:

- Context (Who you are): "I'm [role/background] working on [specific task/challenge]"
- Role (Who the assistant is): "I need you to be [specific expertise] to help me with this"
  Purpose (Why we're doing this): "My goal is to [clear outcome] that will [benefit/
- Purpose (Why we're doing this): "My goal is to [clear outcome] that will [benefit/impact]"

This framing works well because:

- 1. It moves from the specific (your situation) to the general (the desired outcome)
- 2. It provides all the information needed without overwhelming technical terminology
- 3. It mirrors natural human conversation we tend to explain our situation, what kind of help we need, and why it matters

The GPS and study buddy analogies are excellent because they're familiar relationships

#### Three-Point Question Technique

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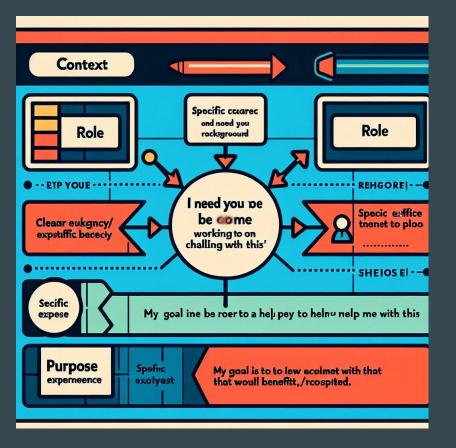
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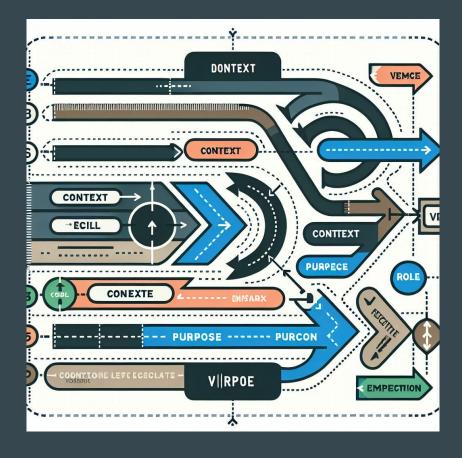
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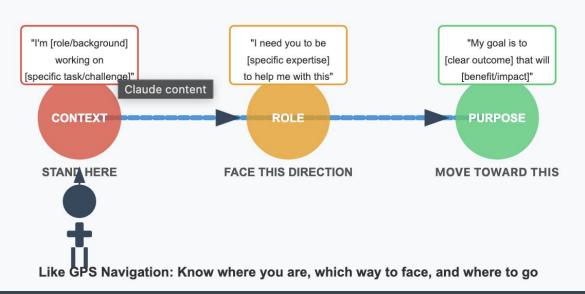




The wrong tool for the job will do the job wrong!



三点質問法 (San-Ten Shitsumon-Hō)



Let's try to answer some questions!

#### The Basics

The usual suspects:

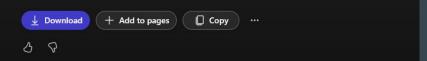
- Claude.ai
- Pi.ai
- Copilot
- ChatGPT
- Gemini

(Listed in order of my personal preference)

Teachable Machines – if you'd like to learn how to **train** a neural network.



A charcoal/pencil sketch of a muscular robot lifting weights while its owner sits behind, eating popcorn in a sketch-like style



**How I address the plagiarism issue – I meme at them.** 

#### **Academic Integrity**

- I tell students up front, "We do exercises to learn skills. That's why you should do your own work."
- Chegg still exists! (I treat AI plagarism like human plagarism.)
- Tools are not perfect, and llamas are getting better at "hiding" AI-ness
- However:
  - Sometimes they leave in the really obvious stuff!
  - Emdash most human's don't use emdashes.
  - GPTZero is a popular site worth checking out.
- Versioning (if possible) is a good way to see if they're doing their own work.

#### How to use Llamas to Learn, not to Cheat?

- Ask AI for explanation, then write it down *in your own words!*
- Ask for motivational tips, ways to organize your notes, etc.
- Explain this like it was:
  - A true crime show
  - A Gordon Ramsay cooking show
  - A comic book
  - An infomercial. ("There's got to be a better way!")
- Find out what kind of learner you are, and ask for information in that mode?
  - Visual
  - Auditory
  - Kinesthetic

#### Societal Impact?

- I'm not comfortable with giving multi billion dollar companies **more ways** to mess with the common people.
- Passive consumption of "AI Slop" is a real concern, as well.
- "AI Ethics" (as stated by OpenAI) is shorthand for "Push our interests, not yours"
- That doesn't mean that (plain old) ethics aren't important!

#### On the other hand:

- It puts powerful tools in the hands of anyone (who can pay, at least)
- Do what you can to actively use AI, not passively consume "the algorithm" 's leftovers.

#### Our other questions

Let's do these interactively!

#### Remember:

- Who you are (context)
- Who the llama is (your second perspective)
- Why we're doing this (meaning)