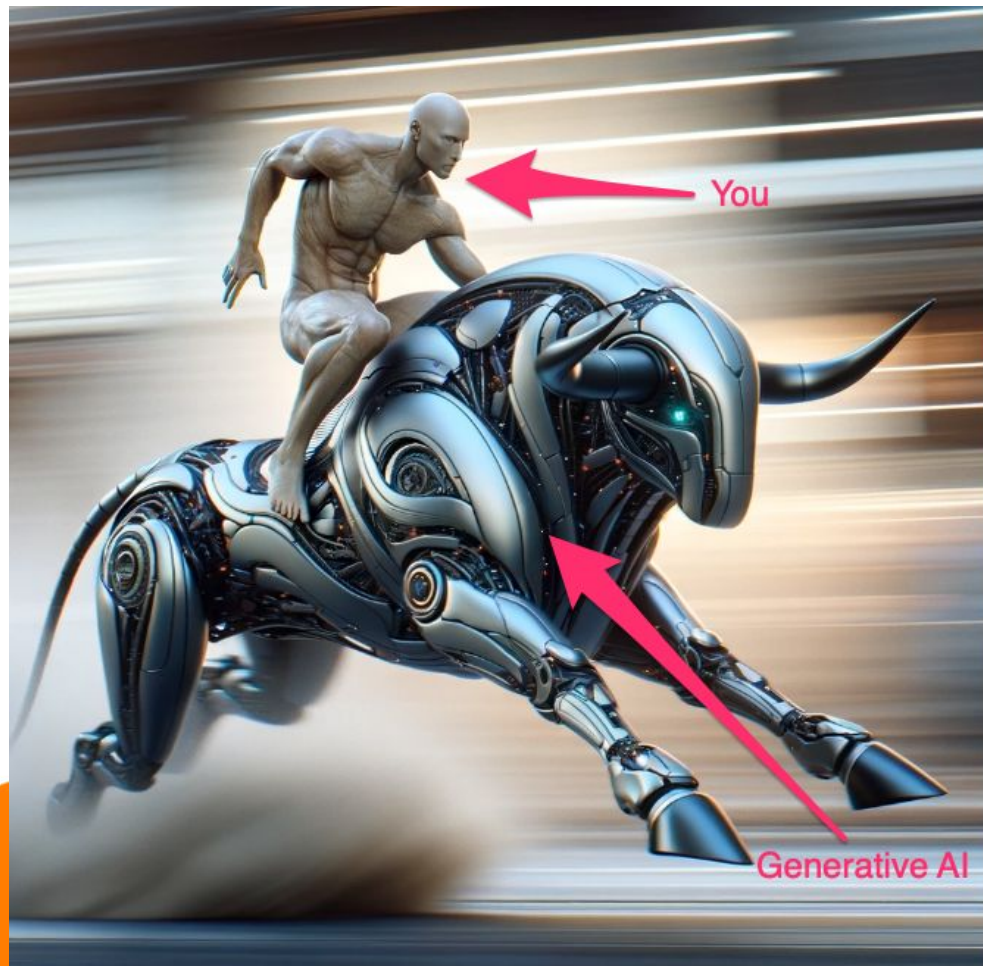


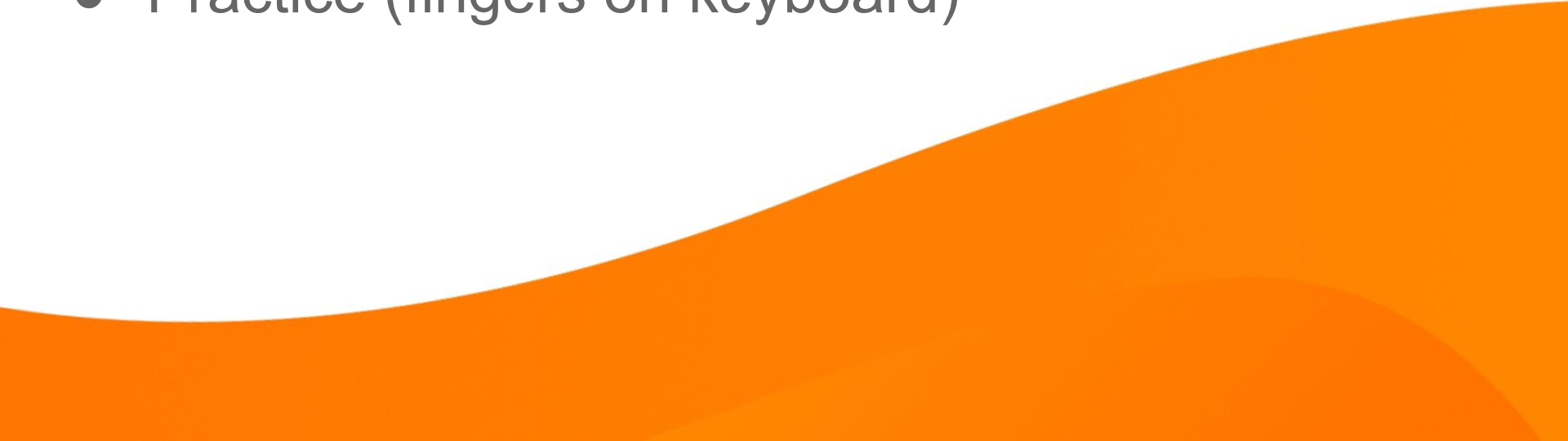
EXTENSION
FOUNDATION

AI Prompting

J. Mark Locklear
IT Project Manager



EXTENSION FOUNDATION

- What is “prompting” vs. keyword search
 - Limitations, concerns, ethics
 - Practice (fingers on keyboard)
- 

Defining Generative AI

To understand generative artificial intelligence (GenAI), we first need to understand how the technology builds from each of the AI subcategories listed below.

Expert System AI

Programmers teach AI exactly how to solve specific problems by providing precise instructions and steps.

Artificial Intelligence

The theory and methods to build machines that think and act like humans.

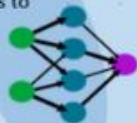


Machine Learning

The ability for computers to learn from experience or data without human programming.

Deep Learning

Mimics the human brain using artificial neural networks such as **transformers** to allow computers to perform complex tasks.



Generative AI

Generates new text, audio, images, video or code based on content it has been **pre-trained** on.



ChatGPT



Midjourney



Bard

AI for Education

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Generative AI is not Google!

Search engines
SEARCH for content
that already exists
and return results
based on your
search terms.



Generative AI/LLMs
GENERATE new
content by
synthesizing the
data it was trained
on based on your
prompt.



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“State College Italian restaurant top 10”

VS.

“I am looking for a good Italian restaurant in State College, PA. Do you have any recommendations?”

Keyword Search VS
Natural Language

How is ChatGPT/ GenerativeAI Different?

ChatGPT was trained on a **HUGE** database of books, articles,& the entire internet.

It can synthesize all of that data, **TRANSFORM** it into text & **GENERATE** an output in natural language based on user input in seconds.

**G -
Generative**

A model that can generate text, images, video, audio, code, etc

**P -
Pretrained**

It has been trained using a massive data set; looks for patterns; learning to communicate like humans

**T -
Transformer**

Takes data and transforms into something useful.

Limitations and Concerns



Bias: LLMs are trained on the entire internet; inherently biased; Provide feedback to help train models. Take caution not to disseminate biased information



Hallucinations: Generative AI can provides “false facts”.



Privacy: LLMs should not be trained on personally identifiable information (PII) and also be careful what you share when asking a question.

Prompting, not searching...



Google
Search Term

lesson plan for
growing hops



Weak Prompt

create a lesson
plan for new hop
growers that
includes location
and hop variety



Effective Prompt

I am a cooperative extension agent teaching a class on growing hops. Create a lesson plan that includes instructions for new growers on the best location and varieties of hops to grow.

What is prompting?

“Prompting is communicating with a generative AI model with natural language”

“natural language” or like you would talk to another human being

CRAFT a Power Prompt



CONTEXT

CONTEXT

Add clear, specific details to help the AI complete the task-embedded throughout the prompt



ROLE

Role

Assign the AI a role for more targeted response
"You are an excellent 8th grade math teacher"



AUDIENCE

AUDIENCE

Provide details about the Audience
6th grade students, 8th grade parent, high school teachers



FORMAT

FORMAT

Output format, length, style, etc. Rap, Song, HTML, etc



TASK/TONE

TASK

What you want action you want the AI to do for you
evaluate, create, edit, revise, brainstorm, etc
TONE professional, friendly, caring, etc



CRAFT Power Prompt

I am a cooperative extension agent in Western North Carolina. I have been tasked with creating a presentation for people interested in planting christmas trees. I need to create a 40 minute presentation to prospective farmers and landowners about what it might take to start a Christmas tree farm and any issues they need to consider before starting such an endeavor.

TALK TO IT LIKE A HUMAN

C CONTEXT IS EVERYTHING!

Context can include relevant information to help the AI tool return desired results

- Be as specific as you can about what it is you want
- Include number of words, number of paragraphs or length of document, email or presentation
- Provide details about the kind of activity, document or message
- Complexity level
- Desired grouping

TALK TO IT LIKE A HUMAN

R

Role



Assigning the AI a role with expertise in the subject matter helps ensure better quality responses.

- “I am a [role]”
- “You are a [role]”
- “Act as a [role]”
- “As a [role]”
- “Take on the role of [role]”

TALK TO IT LIKE A HUMAN

Roles Could Include

- Teacher
- Principal
- Professional Development Trainer
- Website Designer
- Public Speaker
- Technical Writer
- Life Coach
- Counselor
- Football coach
- Project manager
- Expert Biologist, Chemist, Copy writer, coder etc
- Expert level (anything)

Etc ETC

Administrative Task

I am helping coordinate a national technology conference and I need to create a google form for conference attendees. I need to get their name, the organization they work for, their shirt size, ect. Can you create me a google form with these questions and any others you think I might need for the conference?

Hands On- Create an AI Role Play

Create an AI Role Play that is relevant to your curriculum interests.

Copy/ Paste/ Edit Prompt:

"For this activity, you will take on the role of []. I will ask you questions and you will answer in the voice of []. Stay true to the events of the [].

Answer one question at a time as I ask it. Here is my first question..."

Pair & Share!

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Don't stop with just one prompt!

Working with AI models is like having a conversation.

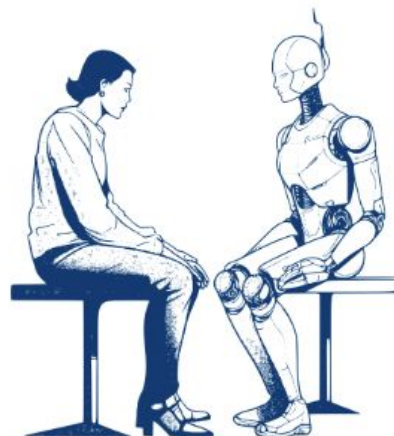
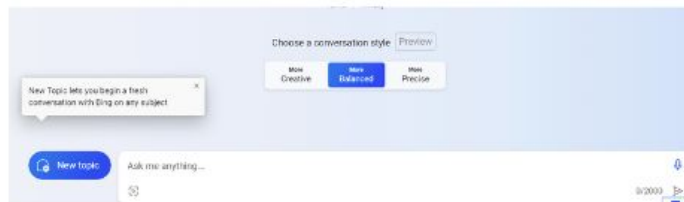
When you make a request, the AI provides a response

Evaluate the response, then follow up on the answer or make another request

Continue the conversation until you get a satisfactory response.

LLMs hold current chat in memory so you can refer back to the original prompt

- Same topic? --- same chat.
- New topic? ---- new chat.



💡 You may need to refine your prompt multiple times by editing the prompt or continuing to the conversation in the chat line.



Add lines to your prompt

Breaking your prompt into separate lines helps the model perform better, especially with longer more complex prompts.

The enter key will submit your prompt

To add additional lines, use shift + enter instead.

💡 Add a line then paste in a passage to summarize or evaluate, a rubric to use, the text of a SCOS standard to reference etc



See project proposal example:

<https://chatgpt.com/c/70e390cb-fdec-4eca-aa34-b6dcb74b4ab3>

HTML Code question:

<https://chatgpt.com/c/7a3c19bd-04ee-4f2a-ab0a-53bc1f1c06cc>

CHUNK INPUT & OUTPUT



Get better results by chunking longer content

Instead of asking AI to write a story, start with an introduction

Instead of an essay, try paragraph by paragraph

Instead of a whole lesson plan, create, iterate, & perfect one piece at a time.

For longer, more complex outputs, ask the model to produce results step by step so you can monitor each piece.

Example building lesson:

- Introduction
- Vocabulary list
- Sentences with vocab words
- Practice (I do, We do, You do)
- Collaborative group work
- Exit ticket
- Discussion questions
- "Now put all of this into a [90] minute lesson plan"

Did You Know?

For complex requests, it helps to tell the AI to 'take a deep breath, take your time and work it out step by step'

How to Use AI Responsibly **EVERY** Time

E **VALUATE** the initial output to see if it meets the intended purpose and your needs.

V **ERIFY** facts, figures, quotes, and data using reliable sources to ensure there are no hallucinations or bias.

E **DIT** your prompt and ask follow up questions to have the AI improve its output.

R **EVISE** the results to reflect your unique needs, style, and/or tone. AI output is a great starting point, but shouldn't be a final product.

Y **OU** are responsible for everything you create with AI. Always be transparent about how you've used these tools.

Ethical use **EVERY** Time

To ensure that AI serves as a valuable tool rather than a potential hazard, it's not only crucial to adopt a framework for responsible use, but acknowledge the key role we play as the users of that technology.

This acrostic will help guide responsible use of GenAI. It encapsulates the key steps to harnessing the power of artificial intelligence without unintended consequences, keeping ethics, accuracy, and transparency at the forefront of your endeavors.

The EVERY framework was created by Vera Cubero (NCDPI) and refined in collaboration with aiforeducation.io for broader distribution.

Click the image to download it from their website at <https://www.aiforeducation.io/ai-resources/how-to-use-ai-responsibly-every-time>



Cite AI as a source

Model transparency & proper citations in your use of AI.

Teach students to do the same.

Traditional Citations:

- MLA format - <https://style.mla.org/citing-generative-ai/>
- APA format - <https://apastyle.apa.org/blog/how-to-cite-chatgpt>

If traditional citations are not required, but any form of AI assistance was used:

- Include an "AI Credits" section to the end of the work.
- Disclose how AI was used for this work (brainstorming, outlining, feedback, editing etc)

💡 A link to AI chats can be shared with the teacher on most major LLM platforms

MLA Citation Guidance

No Author

Title of Source: The prompt or a shortened version of the prompt.

Title of Container: The AI tool (e.g., ChatGPT, Google Bard).

Version: Version of the AI tool (if available). ChatGPT 3.5 assigns a specific date to the version, Google Bard does not.

Publisher: The company that made the tool. For ChatGPT it is Open AI, for Bard it is Google.

Date: The date the content was generated.

Location: Give the general URL for the tool. Note that you can now also give a URL for a ChatGPT response specifically.

"For this activity, I want you to take on the role of the character Jonas from the novel The Giver....." prompt. ChatGPT, 24 May version, OpenAI, 8 June 2023, chat.openai.com/chat.

Questions?



Leave feedback
here!