



Mahidol University

Leveraging AI for Assessment: Crafting Prompts for Assessment design and feedback

Date: Friday, February 14, 2025, from 10:00 a.m. to 11:00 a.m. (online seminar)

The Division of Academic Affairs, Mahidol University, under the collaboration of
The ASEAN University Network Technology Enhanced Personalised Learning (AUN-TEPL25)

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Faculty of ICT, Mahidol University



Hello everyone!

This course is designed to help us explore **how Generative AI can enhance assessment design** and feedback to create more effective and engaging learning experiences. ✨

🎯 What You'll Learn:

- ◆ Understand the importance of **assessment** in learning.
- ◆ **Align AI-generated assessments with Bloom's Taxonomy** to ensure meaningful evaluation.
- ◆ Develop AI-generated **questions** that target different cognitive levels.
- ◆ Use AI-generated **feedback to support personalized learning**.
- ◆ Apply **AI prompt engineering techniques** to real-world assessment tasks.

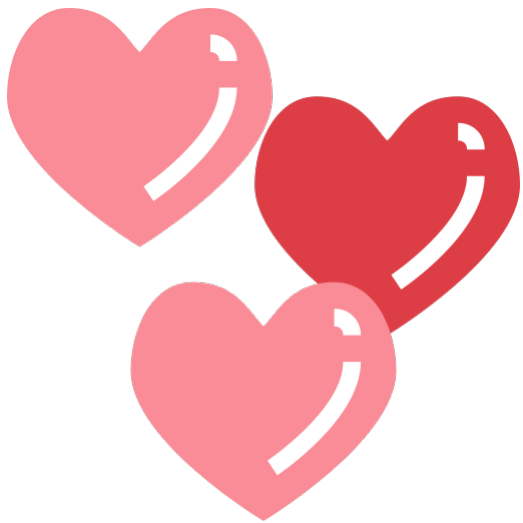
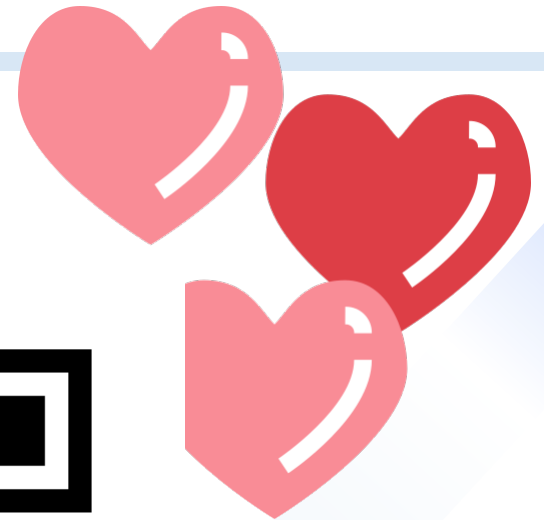
As AI becomes an essential tool in education, those who learn how to leverage it effectively will gain a significant advantage! 🚀

💡 If you have any techniques or have tried AI-powered tools for assessment, feel free to share your insights. The more we exchange ideas, the faster we grow together.

Enjoy the learning experience, and let's use this opportunity to redefine assessment with AI! 🎯

Materials can be download:

<https://bit.ly/413QVuO>



About me

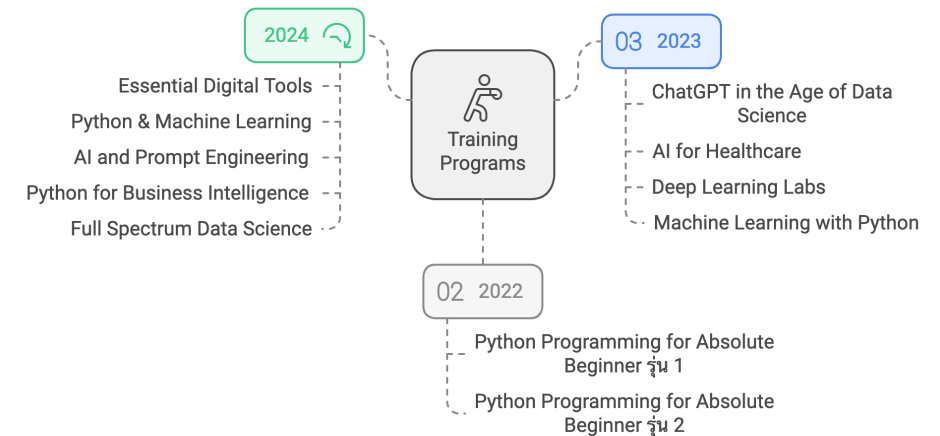
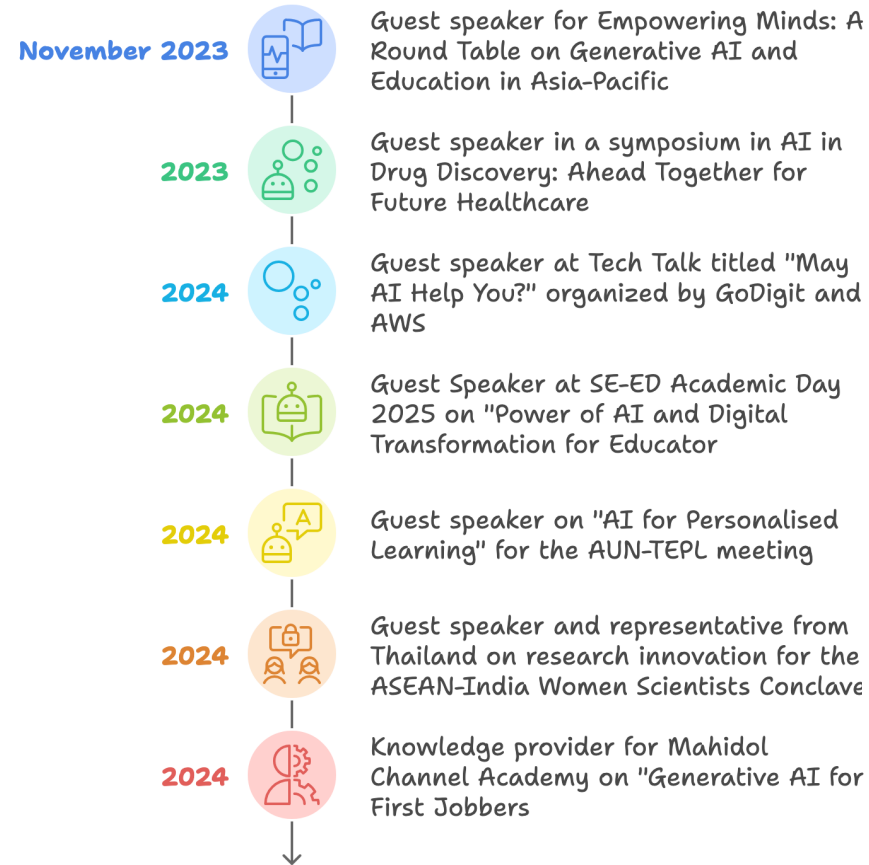


Asst. Prof. Dr. Tipajin Thaipisutikul (Tip)

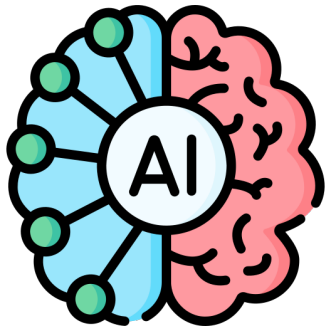
Faculty Member, Faculty of ICT, Mahidol University

Email: tipajin.tha@mahidol.edu

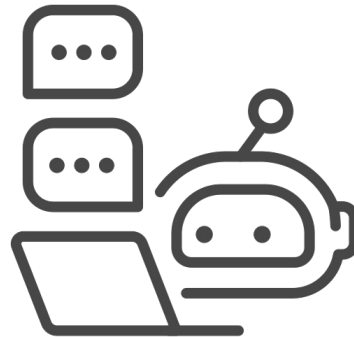
AI Engagements and Insights Across 2023-2024



Leveraging AI for Assessment: Crafting Prompts for Assessment design and feedback



AI Literacy

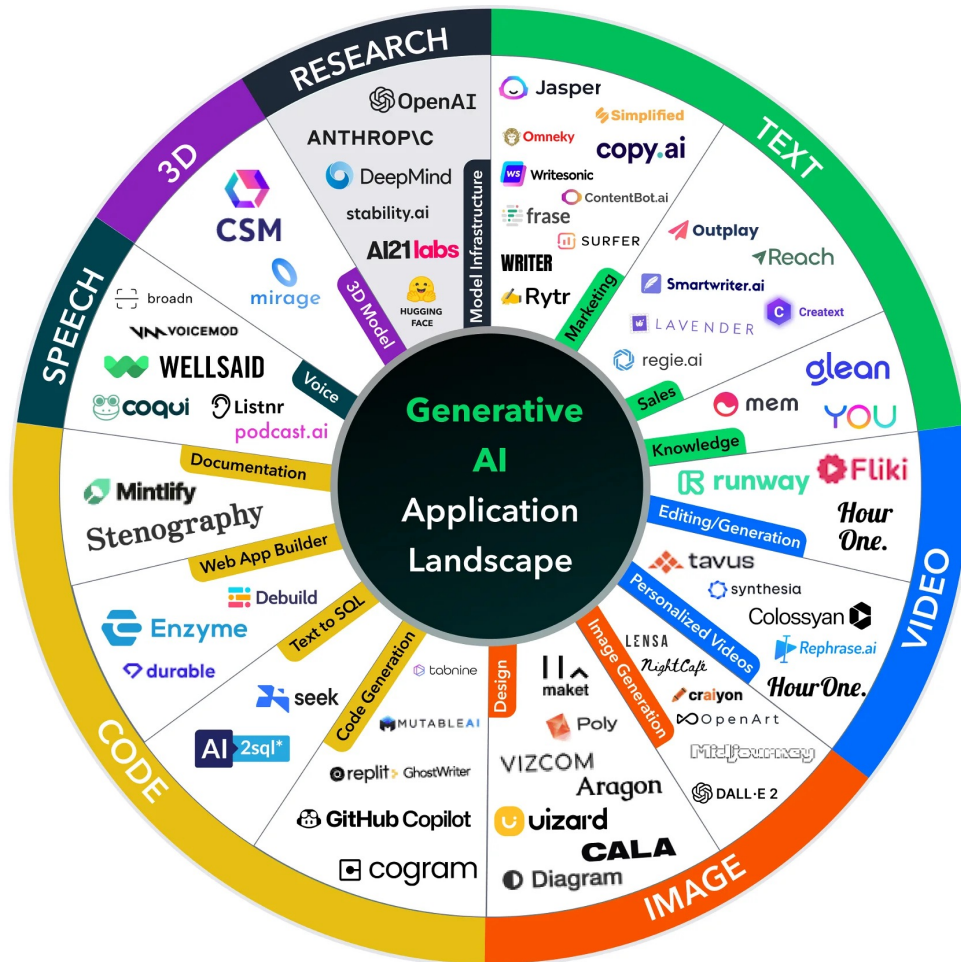


Prompt Engineering



Assessment

The Basics and Functioning of AI



1. **Artificial Intelligence (AI):** AI refers to the ability of computers to think like humans. It is used for problem-solving and decision-making.
2. **Machine Learning (ML):** ML is a subset of AI where computers learn from data to improve their performance without needing explicit instructions for every step. Instead of following pre-programmed rules, ML systems make decisions based on training data or environmental inputs.
3. **Deep Learning (DL):** DL is a type of Machine Learning that uses neural networks modeled to process complex patterns and data.
4. **Generative AI:** Generative AI can create new content in various forms, including text, images, videos, and other formats.
5. **Large Language Models (LLMs):** LLMs are advanced AI text-based models capable of understanding and generating human-like language. They are commonly used in chatbots and other tools for natural language communication.

AI FOUNDATIONS: Understanding AI Technology to Adapt to Change

Seeing (See)

(Computer Vision)

Hearing (Hear)

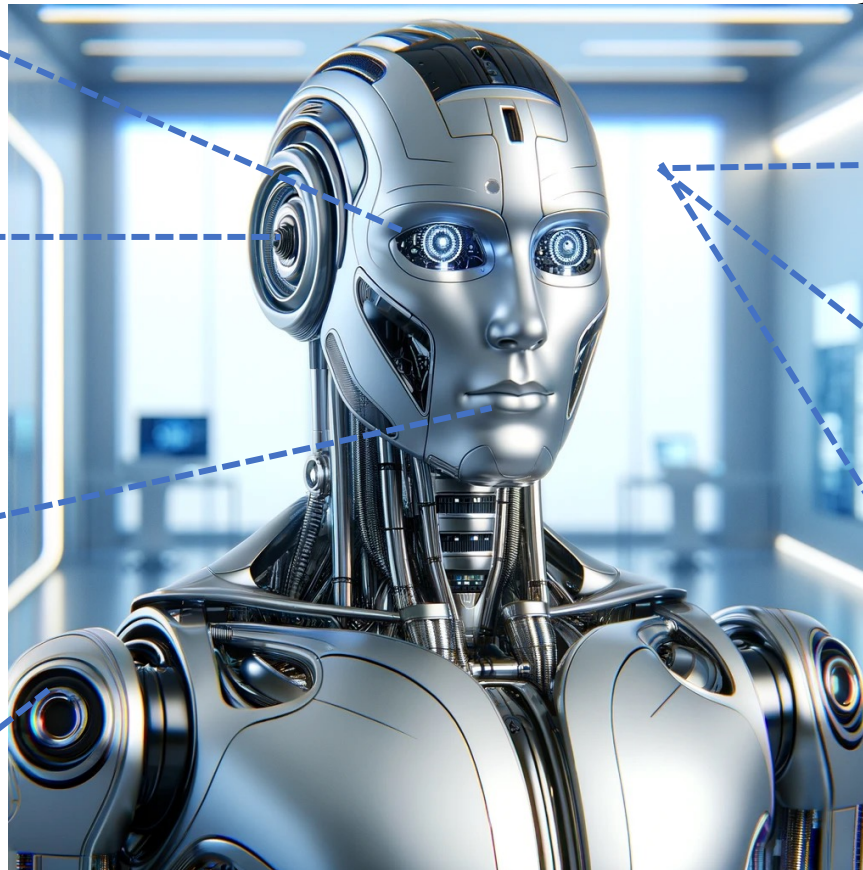
Speech recognition (Converting speech into text – Speech to Text)

Speaking (Speak)

Speech synthesis (Converting text into speech – Text to Speech)

Moving (Move)

Smart robots



AI Capabilities

Think rationally

Prediction, Recommendation system, Expert system

Language comprehension

Natural Language Processing (NLP)
Large Language Model (LLM)

Create new things

Converting text into images (Text to Image), Converting text into video, Converting images into images (Image to Image), Converting images into videos, Multi-modal AI systems

AI FOUNDATIONS: Understanding AI Technology to Adapt to Change

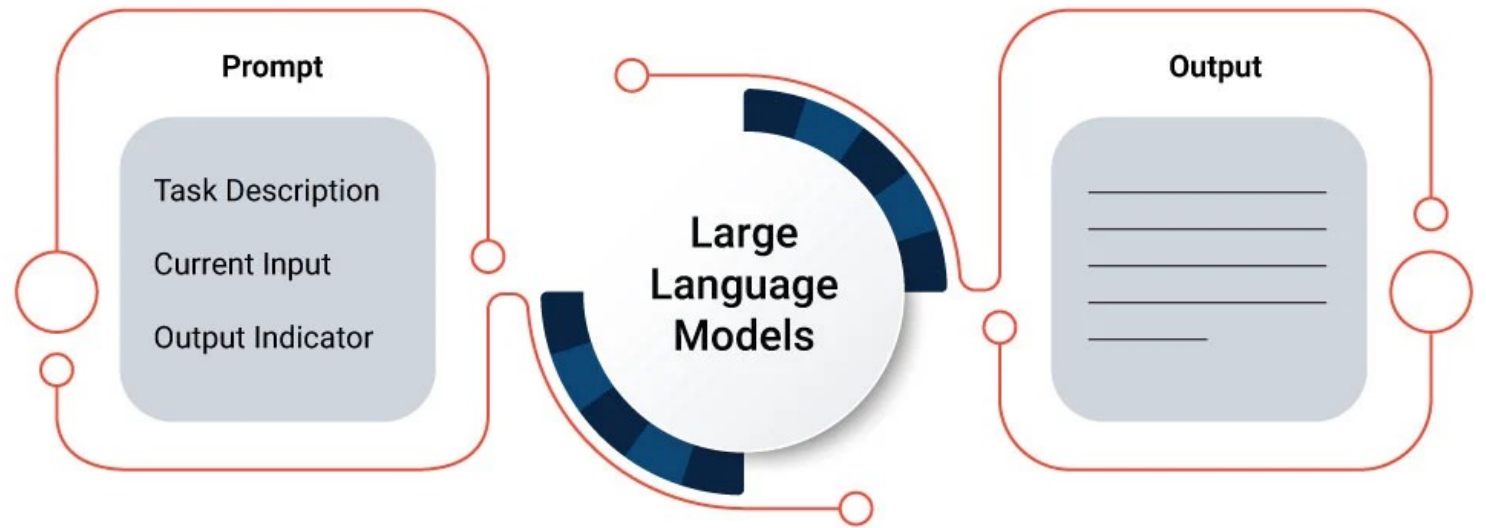
Create new things

Generative AI is artificial intelligence that can generate content such as text, images, audio, video, and code. It creates content based on different prompts or commands.

Reference: (Ouyang et al. 2022) <https://arxiv.org/abs/2203.02155>

Table 1: Distribution of use case categories from our API prompt dataset.

Use-case	
Content Generation	Rewriting / Text Refinement
Open-ended Question & Answering	Summarization
Brainstorming	Classification
Conversation	Information Retrieval
Closed-ended Question & Answering	Others

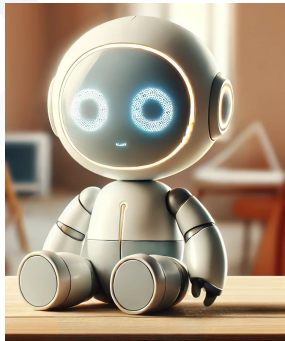


How does an LLM work?

The diagram illustrates an LLM interaction. It features a light gray rounded rectangle containing two main sections. The top section, labeled 'Human' in a purple box, contains the text 'Who is LeBron James?'. This section is enclosed in a blue-bordered box. To the right of this section, the word 'Prompt' is written in blue. The bottom section, labeled 'A.I.' in an orange box, contains the text 'LeBron James is an _____'. Below this text is a list of suggestions: 'American', 'NBA', 'professional', 'All', and 'iconic'. At the bottom of the gray rectangle, a blue-bordered box contains the text 'The answer is the average of the Internet'.

When artificial intelligence software like ChatGPT writes, it considers many options for each word, taking into account the response it has written so far and the question being asked.

How is an LLM created?



Massive Data to learn

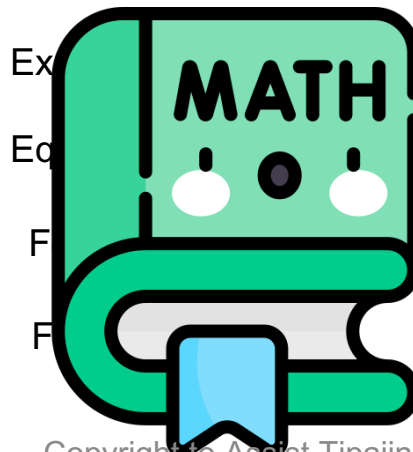


Pre-trained Stage (Foundation Model)

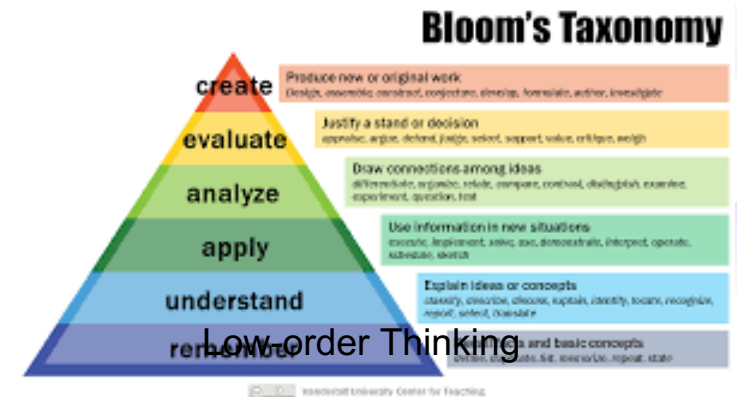
1. Language skills
2. Reasoning skills
3. General knowledge

Intelligent teenage robot that understands and sees the world.

Next step: Model fine-tuning (The AI intern goes for training).



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(tipajin.tha@mahidol.edu)



How is an LLM created?

A teenage robot goes for an internship and becomes more skilled in various specialized tasks.



หุ่นยนต์วัยรุ่นอัจฉริยะที่เข้าใจโลก

Write the meeting summary

Instruction: Write a meeting summary

Example:
This meeting was held on the 19th Feb 2024

- Attendees: Mr. John, Mr. Mark, Mr. Alvin
- Subject Discussed:

Write the python code

Instruction: Write a python script for automation

Example:

```
from llama_index.llms.openai import OpenAI
from llama_index.core.memory import
ChatMemoryBuffer
```

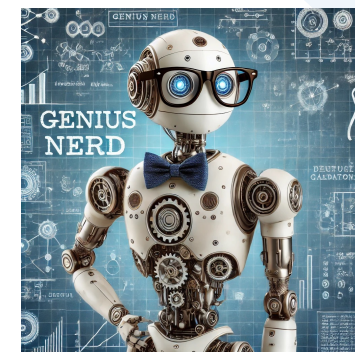
Fine Tuning Model

Can work well in task by task

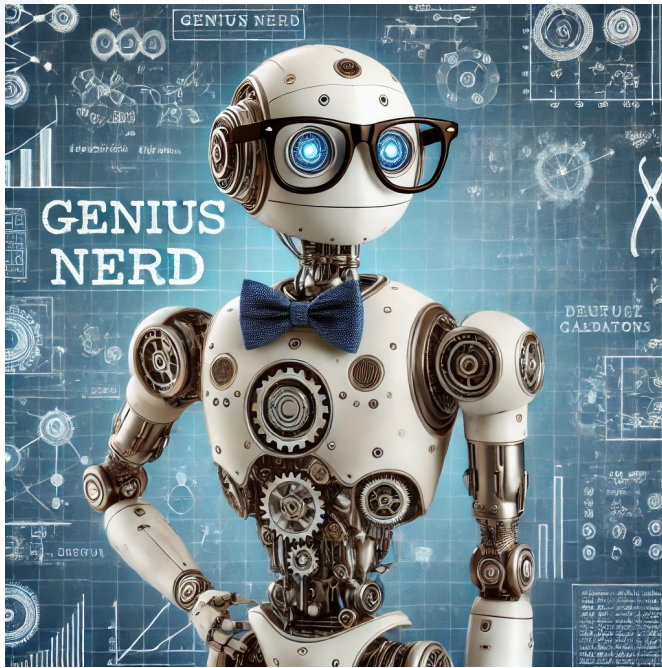


Skill Unlocked!

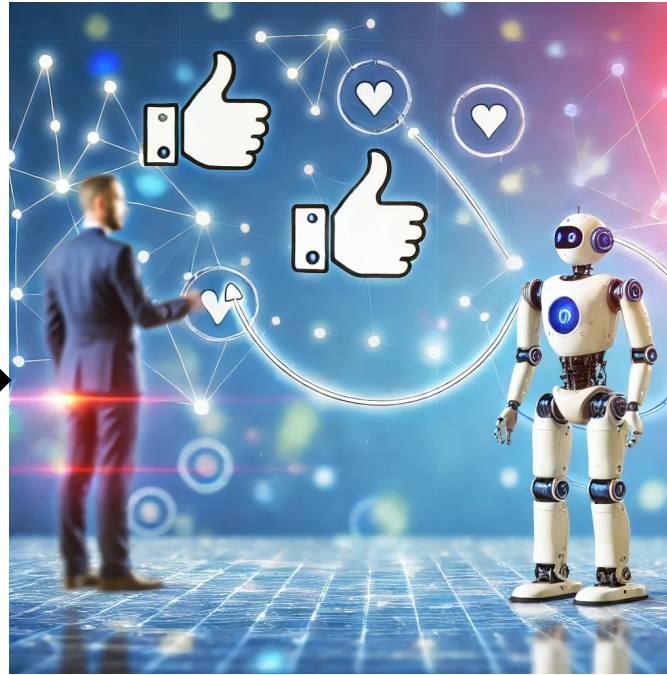
Super nerdy
intelligent robot.



How is an LLM created?



Super nerdy intelligent robot.



Teach the one to communicate with humans more effectively.

Reinforcement Learning Human Feedback (RLHF)

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Conversational AI

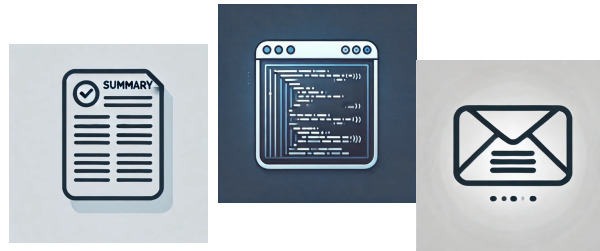
How is an LLM created?

Pre-trained



Generative Pre-trained Transformer (GPT)

Fine-Tuned



Supervised Fine Tuning (SFT)

RLHF





Work Faster

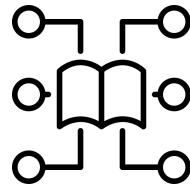


Create the new things

Common Applications in Education



Writing Essays



Writing lesson plans



Writing learning objectives



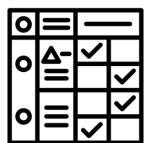
Step-by-step solutions



Designing class syllabus



Creating assessment items



Designing rubrics



Writing video scripts



Drafting emails

Opportunities and Challenges

Opportunities



- High interest levels among educators
- **Provision of real-time, personalized feedback**
- Boosting educator productivity
- Enhancement of student support mechanisms
- Incorporation of AI literacy into the curriculum

Challenges



- **Rethinking assessment design**
- Unpredictable nature of generative AI behavior
- Prone to inaccuracies and biases
- Integration into existing ecosystems
- Limited efficacy studies on student learning
- **Plagiarism**
- **Lack of Critical Thinking**

Generative AI Chatbot

Chatbot Generative AI: Start with this AI gang—it's the best! Behind these AI tools is Generative AI (GenAI), which we need to command to achieve the desired results by **writing prompts (Prompt Design)**.



The key is **learning prompting skills** that you can apply to any AI tool.

(Each tool is like a graduate from a different university—each has its own strengths and specialties.)








No matter which AI you use, prompting skills are the key to getting the most accurate and relevant responses!

- ChatGPT** – Strong in English language fluency, excels in **casual conversations**, **creative writing**, and **youthful, natural-sounding expressions**. Ideal for engaging, informal, and imaginative tasks.
- Gemini** – **Polite and well-structured**, suitable for **formal writing** and **business communication**. Strengths include **access to the latest information from Google**, making it great for research and fact-checking.
- Claude** – Provides **clear, structured, and safety-conscious responses**. Excels in **well-organized explanations**, **ethical AI interactions**, and **logical reasoning**, making it ideal for **professional and academic discussions**.
- DeepSeek** – Specializes in **coding and mathematics**, making it an excellent choice for **technical research**, **algorithm development**, and **data analysis**. Strong in **logical problem-solving** and **precision tasks**.

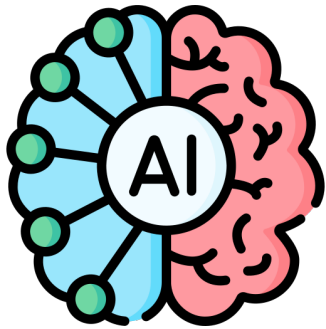
AI Chatbots Comparison

version 2
Jan 28, 2025

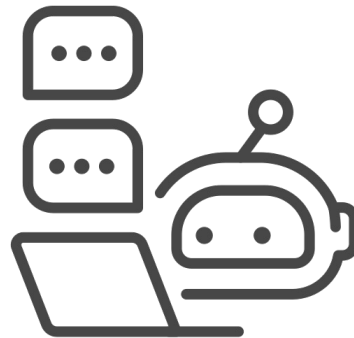


	 ChatGPT	 DeepSeek	 Claude	 Alisa	 Gemini	 Copilot	 Perplexity
Company	OpenAI	DeepSeek	Anthropic	Glory Forever	Google	Microsoft	Perplexity AI
Models	GPT-4o GPT-4o mini GPT-4	DeepSeek-V3	Claude 3.5: Sonnet, Haiku Claude 3: Opus, Sonnet, Haiku	Alisa 3.0	1.5 Flash, 1.5 Pro + Deep Research, 2.0 Flash/Advanced	GPT-4o	Claude 3.5 Sonnet, DeepSeek-R1, GPT-4o, Llama 3.1, Grok-2 etc.
Reasoning Models	o1 pro, o1, o1-mini	DeepSeek-R1	No	No	Gemini 2.0 Flash Thinking Mode	No	o1, DeepSeek-R1
Database	GPT-4o: Oct 2023	v3 : July 2024	3.5: Apr 2024	-	2.0: August 2024	GPT-4o: Oct 2023	Based on Model
Search	Yes	Yes	No	Yes	Yes	Yes	Yes
Create / Edit Image	Yes / Yes	No / No	No / No	Yes / Yes	Yes / No	Yes / Yes	Yes / No
Create Video	Yes (5,20 sec) (SORA: Text / Image to Video) (Remix, Recut, Storyboard, Loop, Blend)	No	No	Yes (5,10 sec) (Text / Image to Video)	No	No	No
Execute Code	Yes (Data Analysis / Canvas)	No	Yes (Artifacts)	No	Yes	No	Yes (Pro search)
API (in/out) / 1M tokens	4o (2.5\$ / 10\$) o1 (15\$ / 60\$)	V3 (0.14\$ / 0.28\$) R1 (0.55\$ / 2.19\$)	3.5haiku (1\$ / 5\$) 3.5sonnet (3\$ / 15\$)		1.5 Flash (0.075\$/ 0.3\$) 2.0 Flash (0\$ / 0\$)	-	Sonar Small (0.2\$ / 0.2\$) Sonar Huge (5\$ / 5\$)

Leveraging AI for Assessment: Crafting Prompts for Assessment design and feedback



AI Literacy



Prompt Engineering



Assessment

The same principles can be applied to any Chatbots

Prompt Engineering for Everyone

(No technical skills need)

It's all about asking the **RIGHT** questions



It has memory

Designing Effective Prompts to Achieve Desired Results

A **prompt** refers to the text or input we provide to an AI model.

What is the difference between these two prompts?

“Explain “**Prompt Engineering**” to me.”

“You act as Director of Centre for Teaching Excellence. Summary “**Prompt Engineering**” to me as a high school student vs working staff in tabular format.”

3 Principles for Creating Effective Prompts

1. **Be Specific:** Use clear, concise language, define roles (persona), provide detailed input, and specify the desired output.
2. **Work in Steps:** Break tasks into smaller steps, manageable parts for better clarity and accuracy.
3. **Iterate and Improve:** Refine responses by reviewing, optimizing, and giving feedback to enhance AI-generated results.



Overview of the Prompt Creation Guide

1. **Role** – Define ChatGPT’s persona (e.g., expert marketer, English teacher).
2. **Desired Output** – Specify the task and format (e.g., generate two email samples, write a website article, develop an online course, create a 1-minute podcast script, present results as a table, list, or Python code).
3. **Objective** – Clarify the purpose of the output (e.g., to make the audience feel relaxed, to advertise a product to my online fanbase).
4. **Context** – Provide **background information**, direction, or **examples** (diverse examples improve reliability, but too many may limit creativity).
5. **Constraints** – Define limitations and guidelines (e.g., emails should be informal, friendly, and under 200 words).

You act as Director of Centre for Teaching Excellence. Summary “Prompt Engineering” to me as a 1st grader vs high school student vs Instructor in tabular format.

Act as a [Role]

- | | |
|-----------------------------|--------------------------|
| 1. Analyst | 15. Prompt Engineer |
| 2. Teacher | 16. Accountant |
| 3. Marketer | 17. Project Manager |
| 4. Advertiser | 18. Sports Coach |
| 5. Mindset Coach | 19. Financial Analyst |
| 6. Therapist | 20. Full Stack Developer |
| 7. Journalist | 21. Linux Terminal |
| 8. Inventor | 22. Interviewer |
| 9. Lawyer | 23. Excel Sheet |
| 10. Ghost Writer | 24. Plagiarism Checker |
| 11. Website Designer | 25. Relationship Coach |
| 12. Best Selling Author | 26. Recruiter |
| 13. Chief Financial Officer | 27. JavaScript Console |
| 14. Copywriter | |

Show as a [Format]

- | | |
|--------------------|-------------------|
| 1. A table | 11. Rich Text |
| 2. A List | 12. PDF |
| 3. Summary | 13. XML |
| 4. HTML | 14. Markdown |
| 5. Code | 15. Gantt Chart |
| 6. Spreadsheet | 16. Word Cloud |
| 7. Graphs | 17. Emojis |
| 8. CSV File | 18. An Analogy |
| 9. Plain Text File | 19. Bullet Points |
| 10. JSON | |

Create a [Task]

- | | |
|------------------------|------------------|
| 1. Headline | 10. SEO Keywords |
| 2. Article | 11. Summary |
| 3. Essay | 12. Video Script |
| 4. Book Outline | 13. Recipe |
| 5. Email Sequence | 14. Sales Copy |
| 6. Social Media Post | 15. Analysis |
| 7. Product Description | 16. Ads Copy |
| 8. Cover Letter | 17. Webpage |
| 9. Blog Post | |

Customize ChatGPT Profile & Memory

Customize ChatGPT

Introduce yourself to get better, more personalized responses ?

What should ChatGPT call you?

Tip

What do you do?

Instructor

What traits should ChatGPT have? ⓘ

Professional/Role: Data Scientist

Key Responsibilities: Data Analysis, predictive modelling, data visualization

Knowledge or Expertise: Statistics, Machine Learning, Data wrangling

Typical Challenges: Data quality, Algorithm bias, scalability.

Current Projects: Customer Segmentation, predictive maintenance

Enable for new chats

Cancel

Save

Settings

General

Notifications

Personalization

Speech

Data controls

Builder profile

Connected apps

Security

Subscription

Custom instructions

On >

Memory



ChatGPT will become more helpful as you chat, picking up on details and preferences to tailor its responses to you. [Learn more](#)

To understand what ChatGPT remembers or teach it something new, just chat with it:

- "Remember that I like concise responses."
- "I just got a puppy!"
- "What do you remember about me?"
- "Where did we leave off on my last chat?"

Manage

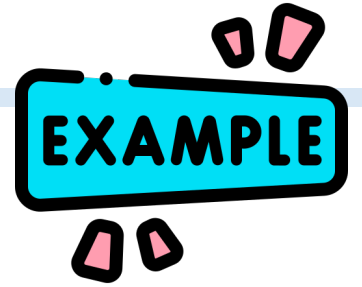
Clear memories

who am i

You are **Dr. Isa Thaipisutikul**, a professor, data scientist, and AI expert with 15 years of experience in analyzing datasets, providing insights, and applying AI in business and education.

Your Expertise & Roles:

- ◆ **Professor & Instructor** – Teaching and mentoring students in ICT, AI, and data science.
- ◆ **Data Scientist** – Specializing in AI-driven analysis, business intelligence, and predictive modeling.
- ◆ **AI Trainer & Speaker** – Conducting workshops and talks on AI, prompt engineering, and digital transformation for businesses and educators.
- ◆ **Business & Real Estate Consultant** – Working with **Narai Property Company**



Focused Prompt Frameworks

Shot Prompting:

- **Zero-Shot:** No prior examples or guidelines are provided before making a request.
- **One-Shot:** A single example or guideline is provided before making a request.
- **Few-Shot:** Multiple examples or guidelines are provided before making a request.

ตัวอย่าง:

Zero Shot: "Generate three multiple-choice questions for an introductory AI course."

One Shot: "Use the following example as a reference: 'Which of the following is a key component of AI? A) Photosynthesis B) Neural Networks C) Gravity D) DNA.' Now, generate three more multiple-choice questions for an introductory AI course."

Few Shot: "Use these examples as references:

1. 'Which of the following is a key component of AI? A) Photosynthesis B) Neural Networks C) Gravity D) DNA.'
2. 'What is the primary function of Natural Language Processing?
A) Image recognition B) Text analysis C) Data storage D) Sound synthesis.'
3. 'Which machine learning approach involves labeled data?
A) Unsupervised learning B) Reinforcement learning C) Supervised learning D) Deep reinforcement learning.'

Now, generate **three multiple-choice questions aligned with Bloom's Taxonomy, ensuring they assess different cognitive levels.**"

Focused Prompt Frameworks



Here are three multiple-choice questions for an **introductory AI course**: 1.
↳ **Which of the following best describes Artificial Intelligence (AI)?** A) A software that only automates repetitive tasks B) A system that mimics human intelligence to...

how to evaluate student capability

To evaluate **student capability** effectively, you can use a variety of **assessment methods** based on Bloom's Taxonomy, ensuring that students demonstrate knowledge at different cognitive levels. Here's how you can assess them using **AI and structured assessment design**:

1. Knowledge & Understanding (Lower-order Thinking)

- ✓ **Multiple-Choice Questions (MCQs)** – Like the ones you provided, these assess basic recall and understanding.
- ✓ **Fill-in-the-Blanks** – Tests factual knowledge of definitions, concepts, and key

“how to evaluate student capability”

2. Application & Analysis (Mid-level Thinking)

- ✓ **Case Study Analysis** – Present real-world scenarios for students to analyze and apply their knowledge.
- ✓ **Problem-Solving Tasks** – Require students to use learned principles to solve specific challenges.
- ✓ **Hands-on Practical Assessments** – Evaluate skills through coding assignments, experiments, or simulations.

3. Evaluation & Creativity (Higher-order Thinking)

- ✓ **Open-ended Essays or Reflections** – Ask students to **critique** an AI model, discuss **ethical concerns**, or **compare** different AI techniques.
- ✓ **Project-Based Assessment** – Have students develop a **small AI model** or conduct a mini research project.
- ✓ **AI-Assisted Assessment & Feedback** – Use **Generative AI** to provide students with **personalized feedback** on their written responses.

Focused Prompt Frameworks

Chain of Thought Prompting: Encourages step-by-step reasoning to explain answers logically.

Question Format: [Your question] Let's think through it **step by step**.

Example: How do you calculate the average of the numbers 5, 10, and 15? "Let's think through it step by step."

Use case: Explaining Test Results and Lab Reports to Patients

Prompt:

"You have received the blood test results of a 45-year-old female patient showing abnormalities in blood sugar and lipid levels. **Explain** the test results to the patient **in simple, easy-to-understand language, and provide a step-by-step health care plan** tailored to her condition."



Hallucination of GenAI

Always verify the accuracy of the results, no matter how credible they may sound!!!

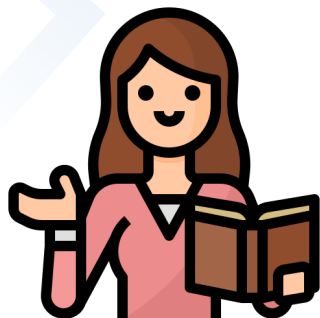
Example of a Prompt that May Lead to Hallucination

You have received the official details of the upcoming AUN-TEPL 2026 Symposium, including the exact dates, instructors, and application opening period. Summarize the key event details in a clear and engaging way.

Example of a Response to the Improved Prompt with **Safeguard**

You have received the official details of the upcoming AUN-TEPL 2026 Symposium, including the exact dates, instructors, and application opening period. Summarize the key event details in a clear and engaging way. **Response with “I don’t know” if you don’t have information.**

Assume you are an Instructor of the course "Intro to Machine Learning"



Teacher Assistant

As the new semester is about to start, we are preparing to submit the TQF3 (Course Specification Form) for the [Introduction to Machine Learning course](#). This is a 5-session, 1-credit elective course, and we need to finalize the weekly topics to ensure a well-structured and engaging syllabus.

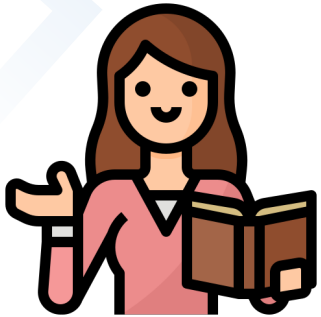
Program Learning Outcomes (PLOs):

1. Solve ICT-related problems using critical thinking, problem-solving, and ICT disciplinary skills.
2. Demonstrate abilities to work in ICT-related projects collaboratively.
3. Perform the individual, social, and ethical responsibilities of a professional working in ICT-related disciplines.

please help me write the Course Learning Outcomes (CLOs)

*If you have previous course details, you can insert with the prompt and ask AI chatbot to help improve

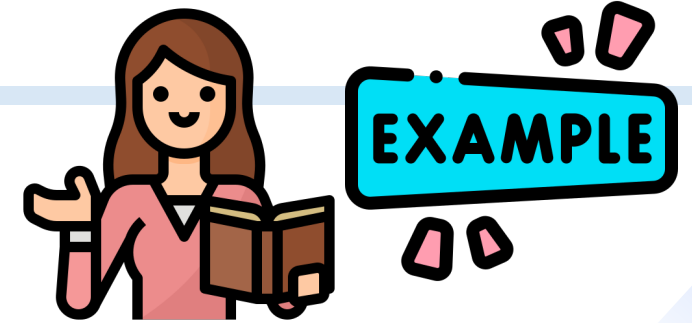
Assume you are an Instructor of the course "Intro to Machine Learning"



Teacher Assistant

Proposed Weekly Topics:

- 1 Week 1: Introduction to Machine Learning
 - Overview of ML applications in real-world scenarios
 - Key concepts: Supervised vs. Unsupervised Learning
 - Introduction to Python and ML libraries (e.g., Scikit-Learn)
- 2 Week 2: Data Preprocessing & Feature Engineering
 - Data cleaning, handling missing values, and feature scaling
 - Feature selection and transformation techniques
 - Hands-on practice with real datasets
- 3 Week 3: Supervised Learning – Regression
 - Linear regression and polynomial regression
 - Evaluating regression models (MSE, RMSE, R-squared)
 - Hands-on practice with regression tasks
- 4 Week 4: Classification
 - Logistic regression and decision trees
 - Support vector machines and k-nearest neighbors (KNN)
 - Model evaluation metrics (accuracy, precision, recall, F1-score)
- 5 Week 5: Unsupervised Learning
 - K-means and hierarchical clustering
 - Principal Component Analysis (PCA) for feature reduction
 - Applications in recommendation systems and anomaly detection



I have to develop a new course for the next semester

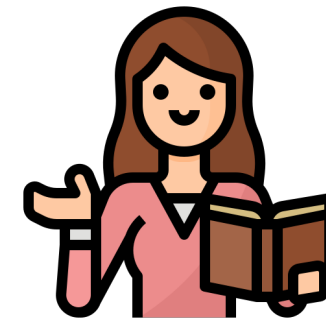
For topic 1, generate 1 MCQ, 1 T/F, 1 Matching, Fill-in, and essay aligned with Bloom's Taxonomy, ensuring they assess different cognitive levels.

For Essay Question, Create a rubric for grading in a **tabular format**. *The total score is 10.*

Assume you are an Instructor of the course "Intro to Machine Learning"

How should a **prompt** be written to design an assessment test that measures learning based on Bloom's Taxonomy at the 4 lower levels for the topic1? The prompt should include the Role, Desired Output, Objective, Actions (What, Why, For Whom), Context, and Constraints. Write the prompt in 1 paragraph. The test should spend 10 mins.

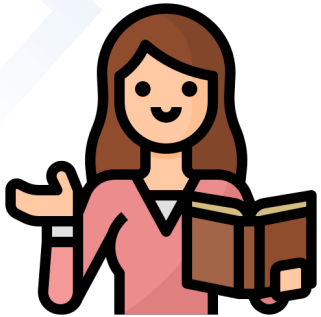
1. Role
2. Desired Output
3. Objective
4. Context
5. Constraints



Overview of the Prompt Creation Guide

1. **Role** – Define ChatGPT’s persona (e.g., expert marketer, English teacher).
2. **Desired Output** – Specify the task and format (e.g., generate two email samples, write a website article, develop an online course, create a 1-minute podcast script, present results as a table, list, or Python code).
3. **Objective** – Clarify the purpose of the output (e.g., to make the audience feel relaxed, to advertise a product to my online fanbase).
4. **Context** – Provide **background information**, direction, or **examples** (diverse examples improve reliability, but too many may limit creativity).
5. **Constraints** – Define limitations and guidelines (e.g., emails should be informal, friendly, and under 200 words).

Assume you are an Instructor of the course "Intro to Machine Learning"



****Desired Output + Objective:**** We need you to create a **pre-test and post-test** to assess students' understanding of **Introduction to Machine Learning**. The goal is to evaluate students' prior knowledge before the session and measure their learning progress afterward.

****Role:**** An **AI-powered assessment designer** specialized in crafting **effective pre-tests and post-tests** for university-level technology courses.

****Context/Background:**** You have **15 years of experience in designing assessments** for data science and AI-related subjects. Your expertise includes creating **engaging, structured, and pedagogically sound** test questions that align with **Bloom's Taxonomy** and measure both conceptual understanding and application skills.

Employee Levels Based on Work Experience:

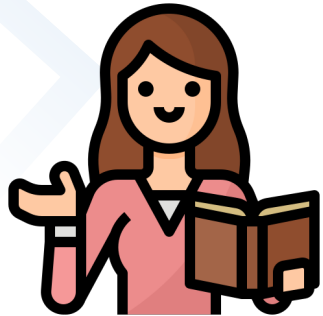
- Lv. 3 Executive Level: 10+ years of work experience
- Lv. 2 Senior Employee: 3 - 10 years of work experience
- Lv. 1 Junior Employee: 0 - 3 years of work experience



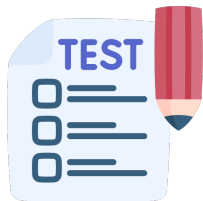
Teacher Assistant

"The difference between the three levels is that as seniority increases, the level of detail and the ability to provide answers also improve. Educators with extensive experience (e.g., 15 years) are often able to provide in-depth, detailed responses along with valuable additional recommendations. Therefore, when we assign AI the role of an educator with 15 years of teaching experience, it helps the AI better understand the context and provide deep insights into education-related topics. This also ensures that the answers are more credible and aligned with our expectations."

Assume you are an Instructor of the course "Intro to Machine Learning"



Slides



Pre-test, Post-test

****Desired Output + Objective:**** We need you to create a **pre-test and post-test** to assess students' understanding of **Introduction to Machine Learning**. The goal is to evaluate students' prior knowledge before the session and measure their learning progress afterward.

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****Introduction to Machine Learning:**** students will explore the fundamentals of ML, including its definition, real-world applications, and distinctions from AI and Deep Learning. They will learn about the key types of ML—Supervised and Unsupervised Learning—along with examples of classification, regression, and clustering. Additionally, students will get hands-on experience with Python for ML, covering essential libraries such as NumPy, Pandas, Matplotlib, and Scikit-Learn, and practice writing simple ML scripts while understanding data preprocessing techniques.

Pre-Test & Post-Test for Introduction to Machine Learning

Pre-Test (Before Learning)

The following pre-test is designed to assess students' prior knowledge before engaging in the **Introduction to Machine Learning** session.

1 What is Machine Learning?

- a) A subset of Artificial Intelligence that enables systems to learn from data
- b) A programming language used for statistical modeling
- c) A method for manually coding decision trees
- d) A branch of hardware engineering

Post-Test (After Learning)

The post-test is designed to evaluate students' understanding after completing the **Introduction to Machine Learning** session.

1 Which statement best defines Deep Learning in relation to Machine Learning?

- a) Deep Learning is a subset of Machine Learning that focuses on neural networks
- b) Deep Learning is another name for Supervised Learning
- c) Deep Learning refers to decision trees and simple models
- d) Deep Learning is used only in robotics

2 Which of the following problems would best be solved using a classification model?

- a) Predicting house prices based on historical sales data
- b) Grouping customers into segments based on purchasing behavior

Youtube Video Chrome Extension

Download @ <https://bit.ly/49csHSB>

chrome web store

t.greentip@gmail.com

Live Demo

Home > Extensions > YouTube & Article Summary powered by ChatGPT

YouTube & Article Summary powered by ChatGPT

glasp.co Featured

★★★★★ 342 | Productivity | 600,000+ users

Overview Privacy practices

Remove from Chrome

View AI Summary (Open new tab)

Copy Transcript (Plain Text)

Transcript & Summary

functionality and wo...
fixing basic code errors

02:09 websites and blogs content is very helpful in gathering potential customer leads the Revolutionary bot can provide full-length blog posts with near perfect fast accuracy in seconds allowing further customization like choosing the length of the subject matter to the complexity of language for John's customer support the black can draft complete customer service emails based on the situation saving time and resources the tone of the message can be changed to reflect the nature of the message creating an efficient alternative for

02:42 call center professionals John was left speechless seeing this level of Versatility from chat GPT and wanted to implement it right away however Ryan

Prompt: summarize the text below in 5 bullet points for non-technical people



Gemini helps summarize information from YouTube.

Type @Youtube followed by the YouTube link you want summarized.





☰ Gemini 2.0 Flash + ⋮ 

✎ @YouTube <https://www.youtube.com/watch?v=9gGnTQTYNaE>
plase summarize the key concept

✦ YouTube ▾

The key concept of this video is to explain what machine learning is and the different types of machine learning. The speaker starts by defining machine learning as a subset of artificial intelligence that uses self-learning algorithms to derive knowledge from data in order to predict outcomes. He then goes on to discuss the three main types of machine learning: supervised learning, unsupervised learning, and reinforcement learning. Supervised learning uses labeled data sets to train algorithms to classify data or predict outcomes. Unsupervised learning uses machine learning algorithms to analyze and cluster unlabeled data sets to discover hidden patterns or groupings. Reinforcement learning is a form of semi-supervised learning where an agent or system takes actions in an environment and is rewarded or punished for its actions. The speaker concludes by encouraging viewers to learn more about machine learning and to check out some of the links in the description for more information. ^

Enabled

-  Google Flights
-  Google Hotels
-  Google Maps
-  YouTube

****Desired Output + Objective:**** We need you to create a **pre-test and post-test** to assess students' understanding of **Introduction to Machine Learning**. The goal is to evaluate students' prior knowledge before the session and measure their learning progress afterward.

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****Instructions:****

Step 1: Read and summarize the key information from **[context.txt, context2.txt, and lecture1.pdf]** to ensure a full understanding before proceeding. ****Wait for confirmation before moving to the next step****

Step 2: Create a MCQ pre-test with assessment mapping to Bloom's Taxonomy. Ensure the questions cover foundational knowledge and initial understanding of ML concepts. And wait for my confirmation before proceeding to the next step.

Step 3: Develop a MCQ post-test with assessment mapping to Bloom's Taxonomy, designed to evaluate knowledge retention, application, and critical thinking regarding ML concepts. And wait for my confirmation before proceeding to the next step.

Step 4: Summarize the expected learning progress by comparing the pre-test and post-test objectives.



Common Symbols Used in Prompts & Their Meanings

Using **Markdown** for Prompts: Learn how to structure prompts more clearly and effectively, helping AI respond accurately and to the point.



****Bold Text Usage**:**

- Using **bold** text: LLMs give more weight to bolded text, **considering it an important topic.**
- Helps ensure that the following information is understood as details related to that topic.

Un-formatted:

Related information

What we learned from the workshop

ChatGPT is a text prediction system built using Large Language Models (LLMs) model...

Formatted:

****Related Information****

What we learned from the workshop

ChatGPT is a text prediction system built using Large Language Models (LLMs) model...

Common Symbols Used in Prompts & Their Meanings

Using **Markdown** for Prompts: Learn how to structure prompts more clearly and effectively, helping AI respond accurately and to the point.



123 list:

- Ordered information or step-by-step process.

() Additional:

- A sidenote or additional context that should be included.

Un-formatted:

Related information

What we learned from the workshop

ChatGPT is a text prediction system built using Large Language Models (LLMs) model...

Formatted:

****Related Information****

1. What we learned from the workshop

2. ChatGPT is a text prediction system built using Large Language Models (LLMs) model...

Common Symbols Used in Prompts & Their Meanings

Using **Markdown** for Prompts: Learn how to structure prompts more clearly and effectively, helping AI respond accurately and to the point.

[] Reference:

- Reference the file in cases where ChatGPT receives more than one file. It does not know the context of what each file is for.



Gemini



Claude



deepseek

Un-formatted:

Related information

What we learned from the workshop

ChatGPT is a text prediction system built using Large Language Models (LLMs) model...

Formatted:

****Related Information****

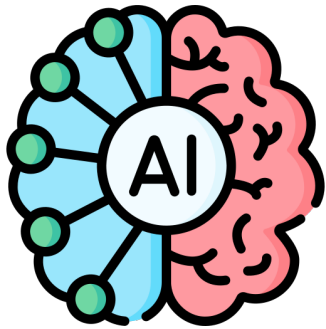
1. What we learned from the workshop

2. ChatGPT is a text prediction system built using Large Language Models (LLMs) model [grammar.pdf]

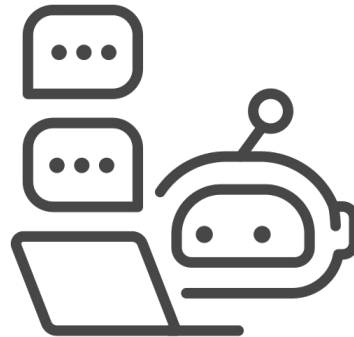
Learning Process and Evaluation



Leveraging AI for Assessment: Crafting Prompts for Assessment design and feedback



AI Literacy



Prompt Engineering

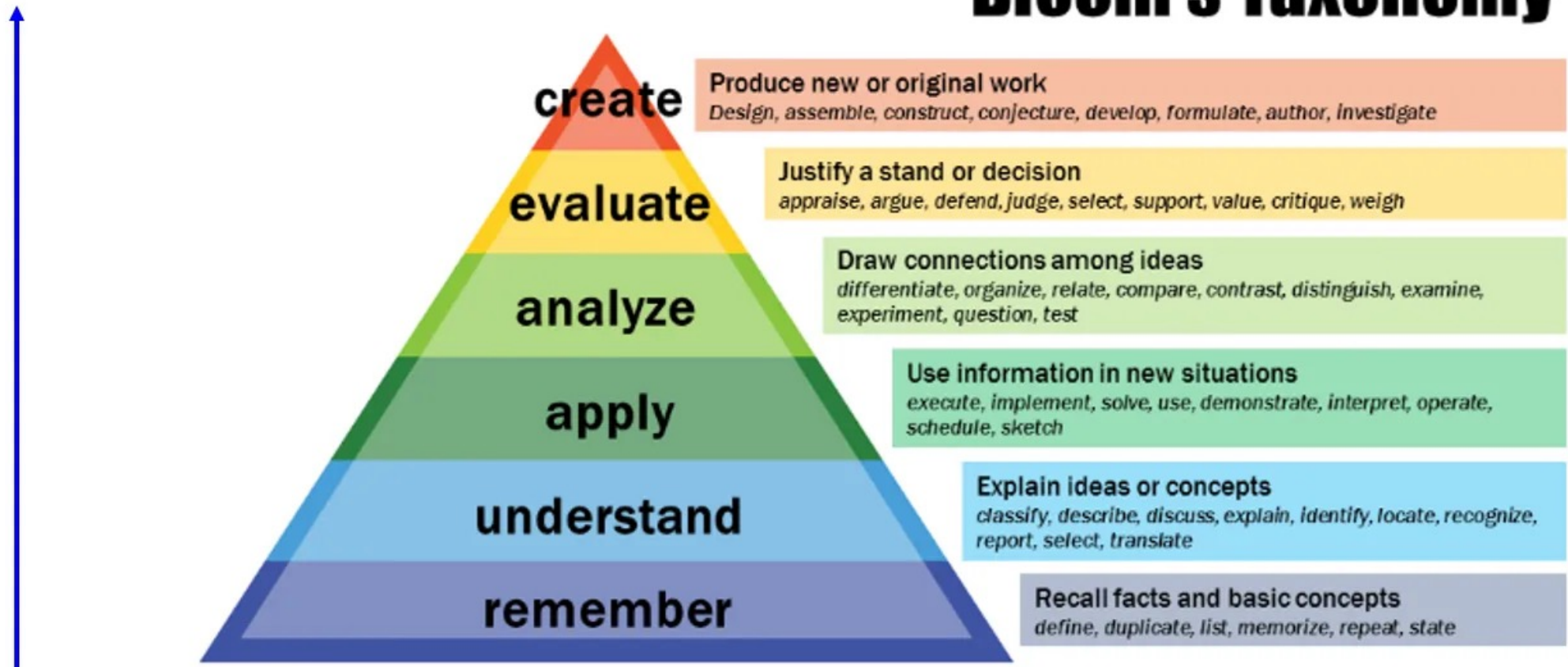


Assessment

Assessment Framework for Evaluating Student Capability

Higher order thinking skills

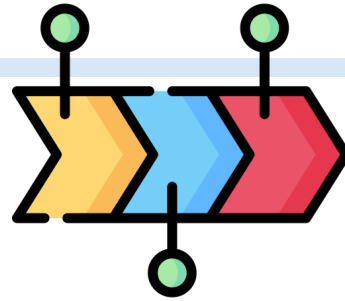
Bloom's Taxonomy



Lower order thinking skills

<https://www.celt.iastate.edu/instructional-strategies/effective-teaching-practices/revise-blooms-taxonomy/>

Types of Assessment



Formative Evaluation (Ongoing, Process-Oriented)

- Conducted during the learning process to provide continuous feedback.
- Helps instructors adjust teaching methods and students improve learning strategies.

Examples:

- Quizzes & short tests
- Classroom discussions
- Draft assignments with feedback



Summative Evaluation (Final, Outcome-Oriented)

- Conducted at the end of a course or unit to measure student learning outcomes.
- Used for grading, certification, or performance benchmarking.

Examples:

- Final exams
- Capstone projects
- Standardized tests



Types of Assessment Questions

1. Objective-Based (Quantitative) Questions

Question Type	Description	Example
Multiple-Choice Questions (MCQ)	Choose the correct answer from given options.	Which of the following is a supervised learning algorithm? (A) K-Means (B) Decision Tree (C) DBSCAN (D) PCA
True/False (T/F)	Determine if a statement is correct or incorrect.	Neural networks require labeled data for training. (True/False)
Matching	Match terms with definitions or related concepts.	Match ML algorithms with their respective categories.
Fill-in-the-Blank	Complete a sentence with the correct word/phrase.	Gradient descent is used to minimize _____ in ML models.
Ranking/Ordering	Arrange steps, events, or concepts in order.	Arrange the steps of the ML pipeline in correct order.
Numeric/Calculation-Based	Solve mathematical problems related to the topic.	Calculate the accuracy of a model given TP=50, FP=10, FN=5, TN=35.

Types of Assessment Questions

2. Subjective-Based (Qualitative) Questions

Question Type	Description	Example
Short Answer	Provide a brief response to assess conceptual understanding.	Explain the difference between precision and recall.
Essay/Descriptive	Write a detailed response explaining a concept.	Discuss the ethical implications of bias in AI models.
Case Study-Based	Analyze a real-world scenario and suggest solutions.	A bank wants to detect fraud using ML. Which model would you recommend?
Subjective/Oral Exam	Answer questions verbally to demonstrate understanding.	How would you explain deep learning to a non-technical person?
Diagram-Based	Label or create diagrams to illustrate concepts.	Draw and label a neural network architecture.
Programming-Based	Write code to solve a problem or implement an algorithm.	Write a Python script to implement logistic regression using Scikit-Learn.

Types of Assessment Questions

Question Type	Description	Example
Open-Ended Reflection	Reflect on personal learning experiences and problem-solving approaches.	What was the biggest challenge in your ML project and how did you overcome it?
Project-Based	Develop a solution and submit findings as a report or presentation.	Train an ML model on a dataset and evaluate its performance.
Rubric-Based Assessment	Use predefined grading criteria to ensure structured evaluation.	Evaluate a coding project based on accuracy, efficiency, and readability.
Peer & Self-Evaluation	Students assess their own or peers' work based on set criteria.	Evaluate your classmate's project based on clarity, originality, and completeness.
AI-Generated Adaptive Assessment	AI dynamically adjusts question difficulty based on responses.	An adaptive quiz that changes based on student performance.

Prompt Template:

You are a **{role}**, specializing in **{subject/topic}**. Generate **{number}** **{question type}** related to **{specific concept}** for **{target audience}**. Each question should align with **{level} Bloom's Taxonomy level**. Ensure only **one correct answer** and provide a **brief explanation** for the correct choice. Keep questions **clear and clinically relevant**.

Choices for Variables:

- {role}**: Medical educator, Physiology professor, Ophthalmology expert, Machine learning Instructor
- {subject/topic}**: Ophthalmology, Vision Physiology, Human Physiology, AI
- {number}**: 1, 2, 3, etc.
- {question type}**: Multiple-choice questions (MCQs), True/False, Matching, Fill-in-the-Blank, Short-answer
- {specific concept}**: Intraocular pressure, Aqueous humor regulation, Glaucoma pathophysiology
- {target audience}**: Second-year medical students, Optometry students, Clinical trainees
- {level}**: Remember, Understand, Apply, Analyze, Evaluate, Create

*If you have PDF slide lecture, please attached with the chat so that it can read and use specific content

Prompt Template:

You are a **Machine learning Instructor**, specializing in **AI**. Generate **5 MCQs** related to **Lecture1: Introduction to ML** for the **second year CS student**. Each question should align with **Remember, Understand and Apply Bloom's Taxonomy level**. Ensure only **one correct answer** and provide a **brief explanation** for the correct choice. Keep questions **clear and clinically relevant**.

Prompt Template:

You are a **Machine learning Instructor**, specializing in **AI**. Generate **5 MCQs** related to **Lecture1: Introduction to ML** **[lecture1.pdf]** for the **second year CS student**. Each question should align with **Remember, Understand and Apply Bloom's Taxonomy level**. Ensure only **one correct answer** and provide a **brief explanation** for the correct choice. Keep questions **clear and clinically relevant**.

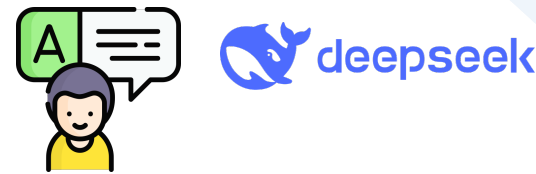
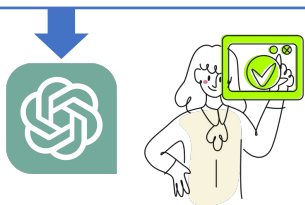


TRY ME!

Prompt Template:

You are a **Machine learning Instructor**, specializing in **AI**. Generate **1 MCQs, 1TF, 1 Fill-in, 1 Short answer** related to **Lecture1: Introduction to ML [lecture1.pdf]** for the **second year CS student**. Each question should align with **Remember, Understand and Apply Bloom's Taxonomy level**. Ensure only **one correct answer** and provide a **brief explanation** for the correct choice. Keep questions **clear and clinically relevant**.

create a rubric score to mark the answer (total is 5 points)



Question: A company wants to develop a recommendation system for an e-commerce platform. Which type of Machine Learning technique should they use, and why? write the very poor, acceptable, and very good answers.

Mark the answer using a rubric score above

Criteria	Good	Fair	Poor
	3	2	1
Speak clearly and confidently	Well-communicated in English, speak fluently, and on-point		
Audience engagement	Frequently have a eye contact, grab audience attention	Start with the desirable outcome for “effective” oral presentation	
Preparedness	Well-practice, Smooth presentation		
Time management	Within the given time		
Question and Answer	Answer the questions with support evidences		

Criteria	Good	Fair	Poor
	3	2	1
Speak clearly and confidently	Well-communicated in English, speak fluently, and on-point		Mumble, cannot explain the concept
Audience engagement	Frequently have a eye contact, grab audience attention		No eye contacts; read the script, No engagement
Preparedness	Well-practice, Smooth presentation		Take time to deliver the presentation; No preparation or practice
Time management	Within the given time		Exceed more than 20% of given time
Question and Answer	Answer the questions with support evidences		Cannot answer any questions or not try to answer

Criteria	Good	Fair	Poor
	3	2	1
Speak clearly and confidently	Well-communicated in English, speak fluently, and on-point	Minor error but able to communicate the important point	Mumble, cannot explain the concept
Audience engagement	Frequently have a eye contact, grab audience attention	Rarely have an eye contact with audience, partially grab audience attention	No eye contacts; read the script, No engagement
Preparedness	Well-practice, Smooth presentation	Somewhat level of preparedness	Take time to deliver the presentation; No preparation or practice
Time management	Within the given time	Exceed not more than 20% of given time	Exceed more than 20% of given time
Question and Answer	Answer the questions with support evidences	Answer the questions without support evidences	Cannot answer any questions or not try to answer

Analytic Rubric for marking Presentation

Criteria	Good	Fair	Poor
	3	2	1
Speak clearly and confidently	Well-communicated in English, speak fluently, and on-point	Minor error but able to communicate the important point	Mumble, cannot explain the concept
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Leveraging AI for Assessment: Crafting Prompts for Assessment design and **feedback**

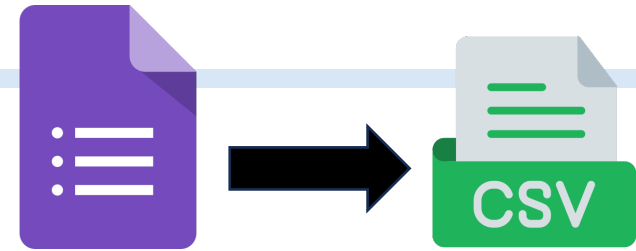


Marking with Prompt Engineering



Group Personalized Feedback

Marking with Prompt Engineering



Give the solution of 4 question again the last question give me the rubric score to grade.

write the prompt to help me grade the answer when throwing the csv answer sheet using the criteria above. Please compare the answer in csv with the correct answer in each question and calculate the score.



Please perform data analysis on the dataset. What are the recommendations or insights regarding student performance? Additionally, group the students into clusters and use descriptive names to represent each cluster.



Leveraging AI for Assessment: Crafting Prompts for Assessment design and **feedback**



Marking with Prompt Engineering



Group Personalized Feedback

Group Personalized Feedback



You are a **supportive and insightful instructor** who provides **personalized feedback** to students based on their academic performance. Students have been grouped into {three} clusters based on their learning patterns and achievements. Your goal is to give **constructive, motivating, and actionable feedback** that helps each student improve.

Guidelines for Using GenAI Safely

Accuracy of Responses: Verify information with reliable sources. Answers may appear correct but can still be inaccurate (Hallucination).

Bias in Responses: Responses may contain biases (related to race, gender, religion) based on the data used for model training.

Clarity in Questioning: Use clear and specific questions to receive useful responses.

Sensitive Information: Avoid important or personal information to maintain privacy.

Plagiarism Checking

1. Smallseotools → <https://smallseotools.com/>

2. Turnitin → <https://www.turnitin.com/>

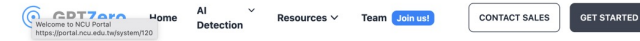
3. Copyleaks → <https://copyleaks.com/>

4. GPTZero → <https://wl.tools/GPTZero>

5. Paraphraser → <https://wl.tools/paraphraser>

6. Originality.ai → <https://originality.ai/>

7. Winston AI → <https://gowinston.ai/>

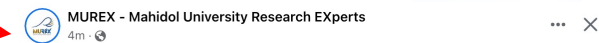


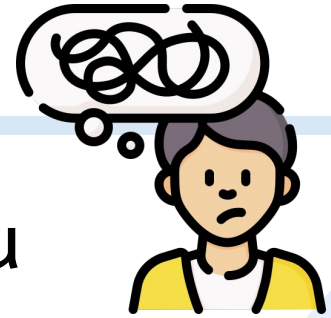
GPTZero

The Global Standard for AI Detection
Humans Deserve the Truth


Detect ChatGPT, GPT3, GPT4, Bard, and other AI models. Try it for yourself

GPT3 GPT4 CHATGPT BARD HUMAN AI + HUMAN






MyGPT creates a chat customized specifically for you

<  **Empathic AI Mentor**
● Live · @ Anyone with a link

Updates pending ... [Share](#) [Update](#)

[Create](#) [Configure](#)



Name
Empathic AI Mentor


Description
An empathetic AI expert providing support and motivation.

Instructions
Empathic AI Mentor is an AI expert with the latest AI knowledge and information. It provides empathetic, encouraging, and supportive responses. It understands when users are feeling depressed, tired, or demotivated and offers gentle encouragement, motivational quotes, and practical advice on managing stress and fatigue while continuing to learn. It provides positive reinforcement and reminds users of their achievements and progress to help lift their spirits and keep them motivated. It

Conversation starters

- I'm feeling overwhelmed with my AI studies. ×
- Can you share some motivational quotes? ×
- I need advice on managing stress while learning. ×
- what are the latest trend in AI ×

Preview



Empathic AI Mentor
An empathetic AI expert providing support and motivation.

- I'm feeling overwhelmed with my AI studies.
- Can you share some motivational quotes?
- I need advice on managing stress while learning.
- what are the latest trend in AI

Message Empathic AI Mentor

+ ↑ ?

Exam GPT Examples



My GPTs

+ Create



GPTs

Discover and create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills.

exam

All



PMI Infinity - PMP Exam Simulator

Explore 175 interactive questions and instantly uncover the intricacies of eac...
By Project Management Institute 100K+



CFA Exam Tutor

Helping you ace CFA exam preparation with detailed explanations and quizze...
By aiventurepulse.com 25K+



Exam Tutor

Free AI Teacher that helps you create exam notes, study guides, MCQs, and l...
By @CustomizedGPTs 10K+



Questions and Answers GPT - Exam Prep Assistant

Extracts Q&A from documents for exam prep, with high precision and covera...
By neuralnest.org 25K+



Bar Exam GPT

Bar Exam GPT helps bar examinees answer key questions about the bar exam...
By Fernando Flores 1K+



Medical School Exam AI

AI Prep for medical school exams including all USMLE exams
By radcharts.org 5K+



Exam Tutor

By @CustomizedGPTs

Free AI Teacher that helps you create exam notes, study guides, MCQs, and long-answer questions directly from your course material, including PDFs, Word documents, images, and more.

★ 4.3

Ratings (300+)

Education

Category

10K+

Conversations

Conversation Starters

Create multiple choice questions from the course...

Create long answer questions from the course document I'...

Create model answers to the questions I will upload

Help me cram. Here are my course notes

Capabilities

Start Chat

MyGPT – MU Example

<https://chatgpt.com/g/g-675e58445ce48191a75a7ec9db35a38c-gened-mahidol-course-design-companion>



สำหรับอาจารย์และบุคลากร



การสำรวจการเปิดสอน รายวิชาศึกษาทั่วไป

แบบสำรวจการเปิดสอนรายวิชาศึกษาทั่วไป
และรายวิชาเลือกเสรี ในแต่ละภาคการศึกษา
สำหรับการส่งข้อมูลเพื่อให้นักศึกษา
ประชาสัมพันธ์รายวิชาแก่นักศึกษา



การพัฒนาหลักสูตรและ เสนอรายวิชาใหม่

การพัฒนาหลักสูตรใหม่/ปรับปรุงหลักสูตรตามประกาศ GE
ขั้นตอนการเสนอรายวิชา GE ใหม่/ปรับปรุงรายวิชา GE เดิม
สำหรับอาจารย์ประจำหลักสูตร และ
อาจารย์ผู้รับผิดชอบรายวิชาศึกษาทั่วไป



การจัดกลุ่ม Literacy รายวิชาศึกษาทั่วไป

นิยามของกลุ่ม Literacy
ตรวจสอบ literacy ของรายวิชาศึกษาทั่วไป
สำหรับอาจารย์ประจำหลักสูตร และ
อาจารย์ผู้รับผิดชอบรายวิชาศึกษาทั่วไป



ฐานข้อมูล รายวิชาศึกษาทั่วไป

รายชื่อและรายละเอียด รายวิชาศึกษาทั่วไป
ที่สามารถเปิดสอนได้แก่หลักสูตร/ส่วนงานอื่น
สำหรับอาจารย์ประจำหลักสูตร



ทดลองใช้ ChatGPT เพื่อจัด Literacy และออกแบบรายวิชา

คู่มือการใช้งาน ChatGPT “GenEd Mahidol Course Design Companion”

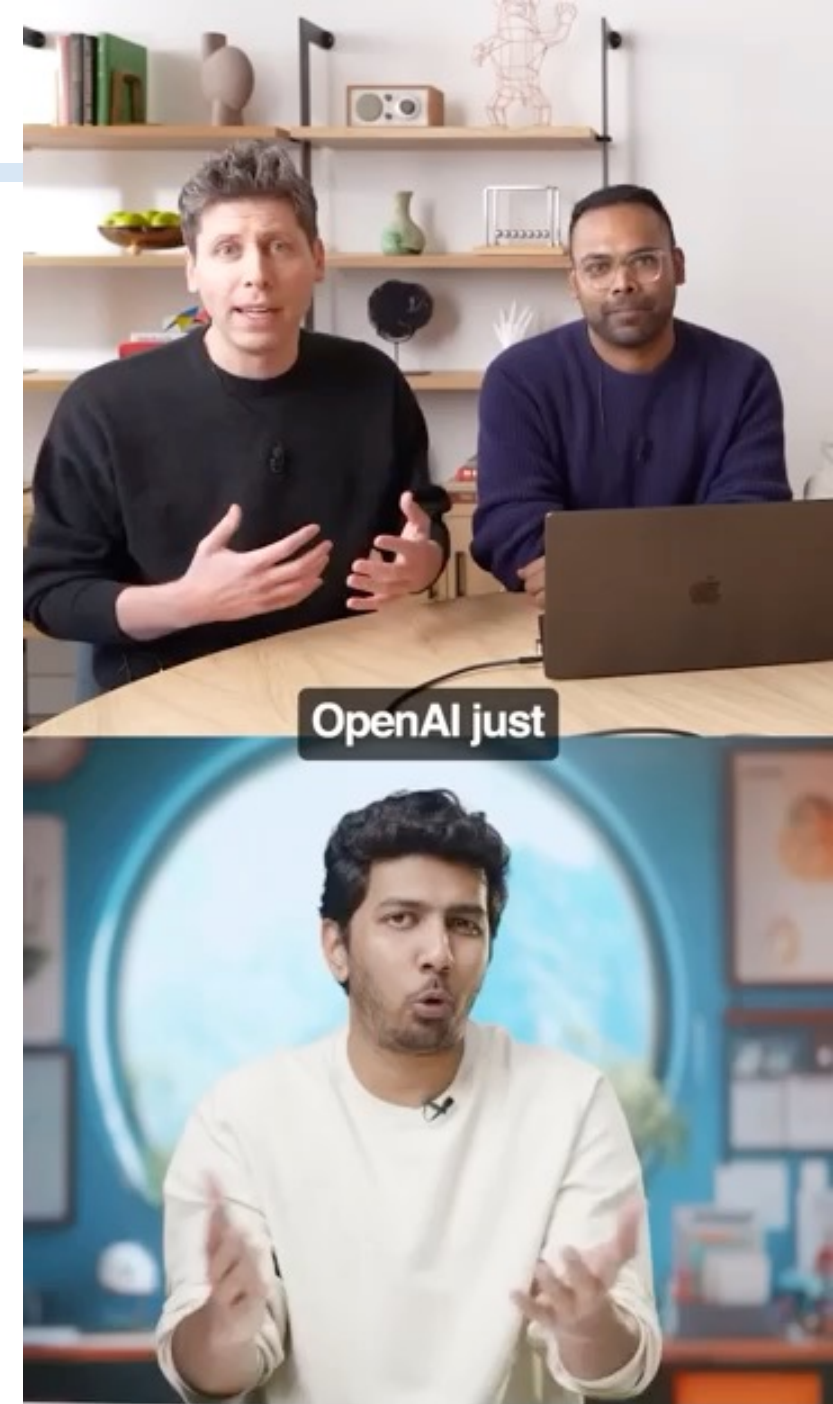
Future trends: AI Agent and Automation

AI Agent:

- Can learn and adapt based on data and experience
- Utilizes technologies such as Machine Learning and Natural Language Processing
- Capable of making decisions and analyzing data intelligently

Automation:

- Operates based on predefined instructions
- Cannot learn or adapt on its own
- Suitable for tasks with clear, sequential steps that do not require decision-making



Leveraging AI for Assessment: Crafting Prompts for Assessment design and feedback

