

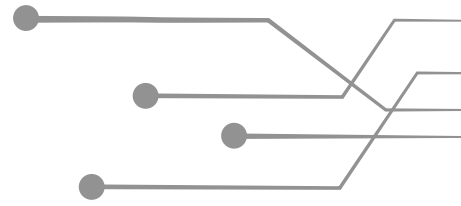
Leveraging Responsible & Ethical AI in Education

Manar Jammal, B.Eng., M.E.Sc., Ph.D.

Associate Professor, School of IT, LAPS, York University

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What's ahead?

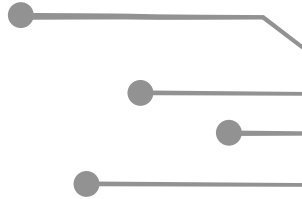


- Intro to AI & GenAI
- AI Applications
- Responsible and Ethical AI in Education
- AI Implications in Education
- Case Studies
- AI Governance in Education
- Final words



UNESCO Education Day - 2025

Themed AI and education: Preserving human agency in a world of automation

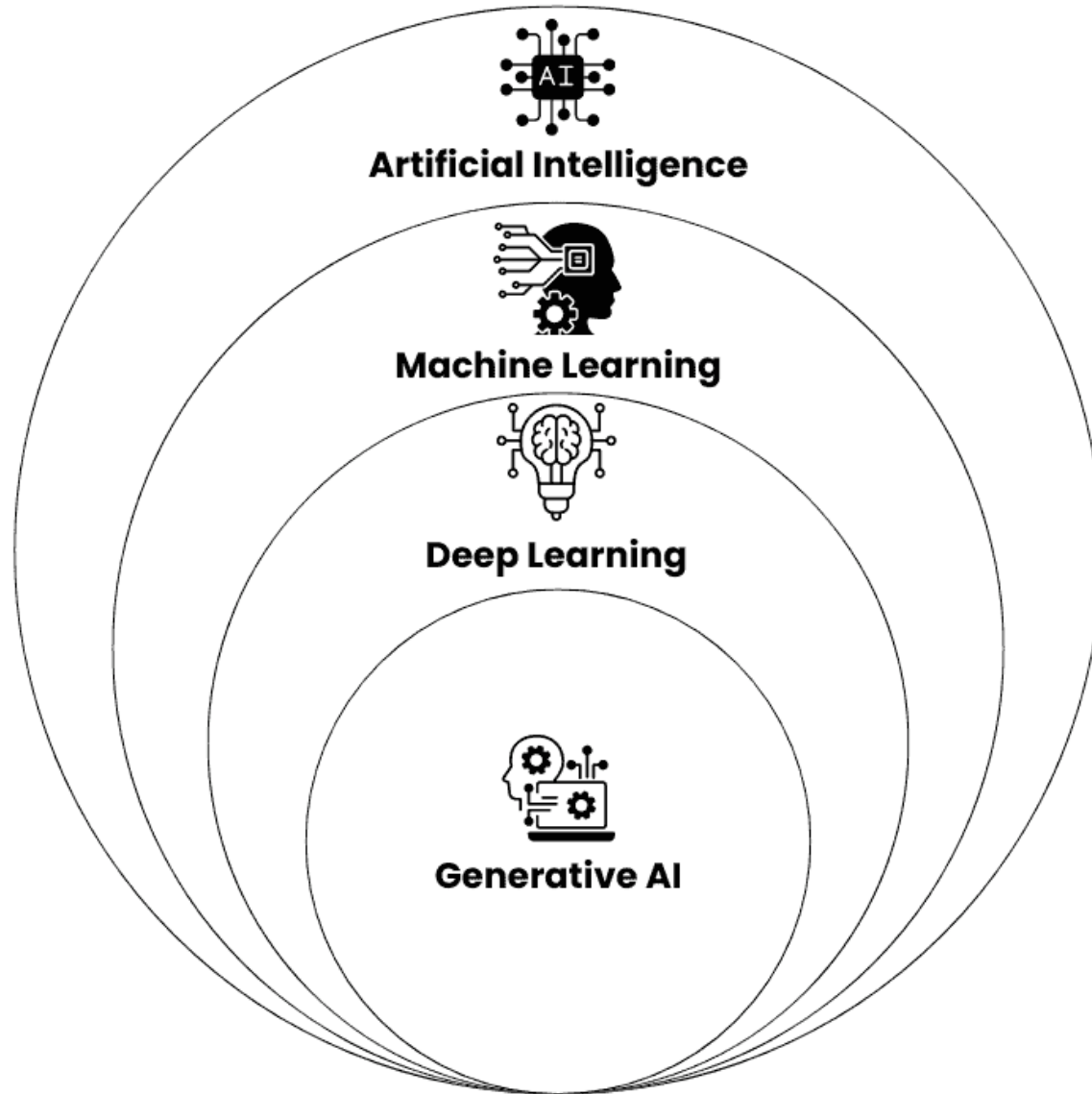


“Under the theme “AI and Education: Challenges and Opportunities,” the event will explore the transformative impact of Artificial Intelligence (AI) on education. The discussion will examine how AI is revolutionising teaching and learning practices, while education plays a critical role in ensuring that AI is developed ethically, inclusively, and in alignment with human values.”

“To reach its full potential, this technology must **complement** the human and social dimensions of learning, **rather than replace them**”



AI is...



WHAT IS GenAI?



Subset of deep learning that is focused on creating content

It can be anything from text, images, music, or even videos

Designed to learn patterns and structures from the input data

Generate new, similar content

Examples: ChatGPT, Jasper AI, DALLE-2, AI Dungeon...

Responsible and Ethical AI in Education

Responsible AI

Ethical, transparent, and accountable AI systems aligning with societal values

Importance in Education

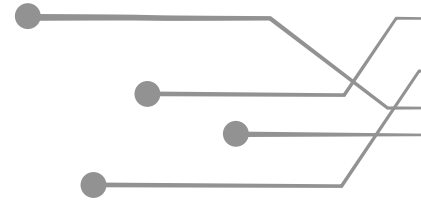
Facilitates tailored learning, improves outcomes, and streamlines administrative tasks

Ethical Concerns

Data privacy, algorithmic bias, and academic integrity concerns



AI Applications in Education



- **Personalized Learning:** AI-driven adaptive learning platforms.
- **Intelligent Virtual Assistants:** AI tutors and chatbots in education.
- **Enhanced Assessment and Feedback:** AI for grading and evaluation.
- **Virtual Reality and Augmented Reality:** Immersive learning experiences.
- **Accessibility:** AI for students with disabilities.
- **Administrative Efficiency:** Automating tasks in education and business.
- **Student Support:** AI in mental health, financial advising, tutoring, and engagement.



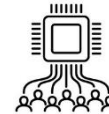
Drawbacks of AI in Education



Bias and Ethical
Concerns



Reduced Human
Interaction



Technology
Overdependence



Increased costs



Accessibility Concerns



Technical Difficulties



Misinformation



Job Displacement



Intellectual property and
Academic Integrity



Data Privacy and
Security

CASE STUDIES - 1

AI in Personalized Learning

Tools

- **Duolingo, Squirrel AI** to adapt lesson plans based on student progress.
- Gamified tools for interactive learning, i.e., **Kahoot**
- **Coursera & Khan Academy** provides AI-driven recommendations for personalized courses.

Some ethical Concerns

- Bias against certain student groups.
- Over-reliance on AI and reduction in instructor involvement, **so we need:**
 - ✓ **Regular AI audits**
 - ✓ **Educator oversight to fine-tune AI-based learning plans.**



CASE STUDIES - 2

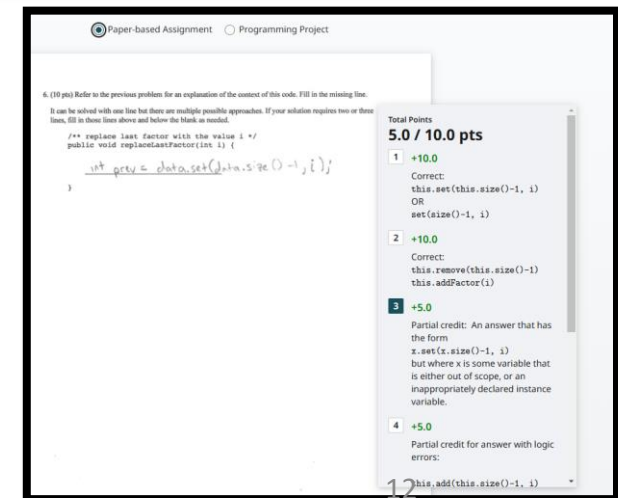
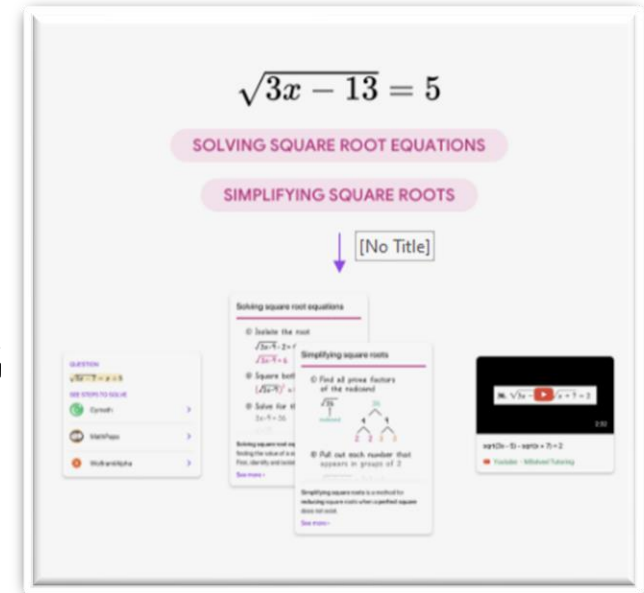
AI in Assessment & Feedback

Tools

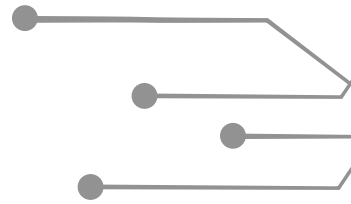
- AI-driven grading and plagiarism detection, i.e. **Gradescope**
- Explains concepts for students, such as **Google Socratic**
- AI-generated quizzes/assignments based on study materials such as **Quillionz**

Some ethical Concerns

- Misinterpret complex student responses
- Potential biases in automated grading systems, **so we need:**
 - ✓ **Human oversight is required for grading**
 - ✓ **AI models must be tested on diverse student responses to avoid bias**



CASE STUDIES - 3



Curriculum Development

Tools

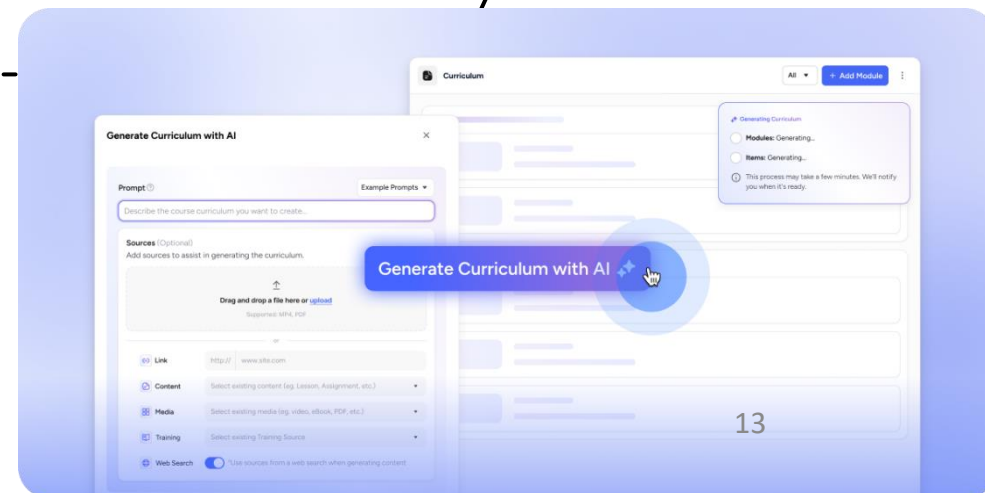
- Assist in curriculum planning and personalization.
- Generate course outlines and lesson plans.
- AI-driven competency-based curriculum design.

✓ Tools include ChatGPT, Jasper AI, Skillsoft Percipio

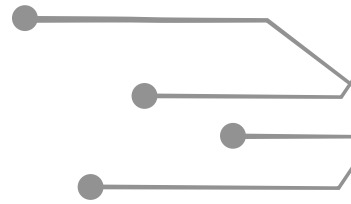
Some ethical Concerns

- AI may exclude diverse viewpoints
- AI-generated content may not align with academic values.
- AI tools collect student and institutional data for optimization., so we need:

- ✓ Human validation of AI-generated content
- ✓ Regular AI audits
- ✓ Strong data protection policies



CASE STUDIES - 4



AI for Student Support



Mental Health Counseling

Use Case:

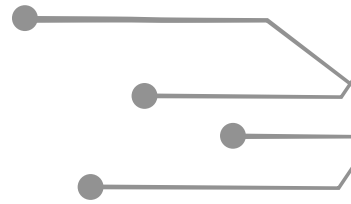
24/7 Support through Chatbots: AI-powered chatbots can provide students with immediate emotional support, using conversational AI to help with stress, anxiety, or loneliness (**Woebot**, **Edsights...**)

Ethical Challenges:

- **Privacy and Data Security:** Mental health data is highly sensitive. Breaches could expose private conversations or emotional states.
- **Bias in Response Algorithms:** If AI responses are trained on biased or limited datasets, they may offer inadequate or harmful advice. AI system might provide culturally inappropriate coping suggestions to students from diverse backgrounds.

DISCLAIMER: Any system providing services related to human health must undergo rigorous testing and operate under strict professional supervision to ensure safety, reliability, and ethical compliance.

CASE STUDIES – 4'



AI for Student Support

Financial Aid Advising

Use Cases:

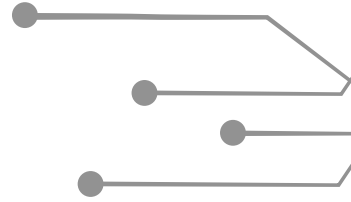
- AI platforms like **Campus Logic** evaluate a student's financial data and suggest appropriate scholarships or work-study opportunities.
- **Automated FAQ Responses:** Chatbots can answer common financial aid questions, reducing the workload on financial aid offices.

Ethical Challenges:

- **Transparency in Recommendations:** Students may not understand how AI decides which financial aid options are suggested, leading to mistrust.
- **Exclusion of Marginalized Groups:** AI trained on historical data might inadvertently exclude low-income or underrepresented students from some opportunities.



CASE STUDIES - 5



AI for Administrative Efficiency

Tools

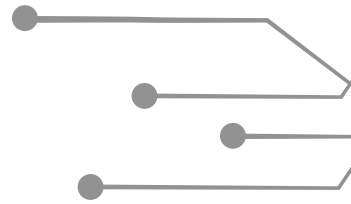
- AI for scheduling and resource management, i.e., **IBM Watson for Education**
- AI-driven student enrollment and admission management, i.e., **Salesforce Einstein**
- Tracking student progress, i.e. **Google Classroom AI Features**

Some ethical Concerns

- Privacy risks in AI-driven administrative systems.
- AI replacing human decision-making in education management, **so we need:**
 - ✓ **AI systems should comply with GDPR & FERPA data protection laws**
 - ✓ **AI should assist, not replace, administrative professionals.**



CASE STUDIES - 6



AI for Accessibility in Education

Tools

- **Ava**: AI-powered real-time transcription for students with hearing impairments.
- **Seeing AI** for narration of text and objects for blind and low vision community.

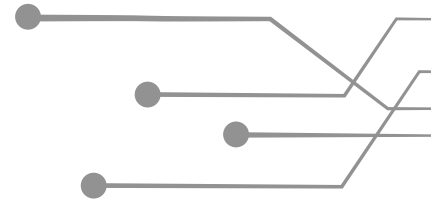
Some ethical Concerns

- AI-generated captions/transcriptions may have errors.
- High cost for accessibility AI tools, **so we need:**
 - ✓ **Regular AI model updates for better speech recognition accuracy.**
 - ✓ **Government and institution funding for AI accessibility programs**



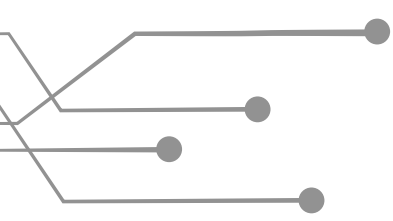
Make AI a **Support System** rather than a **Shortcut**:

Integrity Without Compromise in Class



- **In-person** and live evaluations (in-person exams, live debates/problem-solving...).
- **In-class reflection** or process-based assignments.
- Educate students on **AI literacy** (strengths, limitations, hallucinations, and ethical implications).
- Set **clear policies** on when and how AI can be used responsibly in coursework.
- Have students **analyze AI** outputs for biases, inaccuracies, and missing context.
- Encourage students to **improve AI-generated** responses with critical insights.
- Require students to **submit a handwritten or in-class sample** to establish their style.





AI Governance in Education



Policy Making: Governments and regulators should develop policies that guide the use of AI.

Develop Advanced Detection and Monitoring Models for identifying and filtering out misinformation.

Promote Digital Literacy to identify credible sources and recognize misinformation.

AI Governance in Education



Conduct Awareness Workshops to enlighten faculty, staff, and students about the risks of AI.

Transparency Requirements to clear outputs build trust.

Stakeholder Collaboration through an inclusive framework development.

Empower faculty, staff, and students to effectively use AI (i.e. prompt engineering...)

How Prompts Impact AI Output

➡ Basic Prompt

📄 "Create an outline for a coding course."

1. Introduction to Programming
2. Variables and Data Types
3. Control Structures
4. Functions and Modules
5. Object-Oriented Programming
6. Data Structures
7. Debugging and Testing
8. Final Project

ChatGPT Output (Broad - Generic)

➡ Improved Prompt

📄 "Create an outline for an introductory Python coding course designed for university students with no prior programming experience. The course should focus on hands-on learning, real-world applications, and preparing students for industry projects. Include weekly topics and assessments."

ChatGPT Output (More structured & detailed)

Week 1: Introduction to Python & Programming Basics

- What is programming?
- Installing Python & setting up an IDE
- Writing and running your first Python script
- Assignment: Simple Python print statements

Week 2: Variables, Data Types, and Input/Output

- Understanding variables and data types (int, float, string, boolean)
- Taking user input and displaying output
- String manipulation and basic formatting
- Assignment: Build a simple calculator

Week 3: Control Structures (Loops & Conditionals)

- If-else statements and logical operators
- Loops: for, while, and when to use them
- Debugging common loop errors
- Assignment: Create a simple number guessing game

Week 4: Functions and Modular Programming

- Defining and calling functions
- Function parameters and return values
- Writing reusable, modular code

Prompt Engineering: The Key to Effective AI Use

The ChatGPT Cheat Sheet



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

Create a [TASK]
1. Headline
2. Article
3. Essay
4. Book Outline
5. Email Sequence
6. Social Media Post
7. Product Description
8. Cover Letter
9. Blog Post
10. SEO Keywords
11. Summary
12. Video Script
13. Recipe
14. Sales Copy
15. Analysis
16. Ad Copy
17. Web Page

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

Set restrictions
1. Use poetic language
2. Adopt a formal tone
3. Write short sentences
4. Code only in HTML/CSS
5. Use Shakespearean style
6. Write using basic English
7. Use only scientific sources
8. Add pop culture references

Prompts For Biz Owners
1. Give me a list of inexpensive ideas on how to promote my business better.
2. Acting as a Business Consultant, What is the best way to solve this problem of [Problem]?
3. Create a 30-Day Social Media Content Strategy based on [Topic 1] & [Topic 2].

Prompts for Developers
1. Develop an architecture and code for a <description> website with JavaScript.
2. Help me find mistakes in the following code <paste code below>
3. I want to implement a sticky header on my website. Can you provide an example using CSS and JavaScript?
4. Please continue writing this code for JavaScript <past code below>

Prompts for Marketers
1. Can you provide me with some ideas for blog posts about [topic]?
2. Write a product description for my [product or service or company].
3. Suggest inexpensive ways I can promote my [company] without using social media.
4. How can I obtain high-quality backlinks to improve the SEO of [website name]?

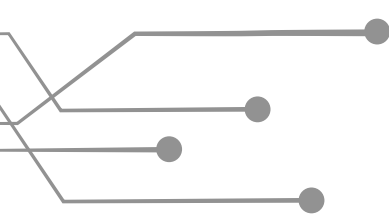
Prompt Priming
1. ZERO - "Write me 5 Headlines about [Topic]"
2. SINGLE - "Write me 5 Headlines about [Topic]. Here is an example of one headline: 5 Ways to Lose Weight"
3. MULTIPLE - "Write me 5 Headlines about [Topic]. Here is an example of some headlines: 5 Ways to Lose Weight, How to Lose More Fat in 4 Weeks, Say Goodbye to Stubborn Fat, Find a faster way to Lose Weight Fast"

Prompts for Designers
1. Generate examples of UI design requirements for a [mobile app].
2. How can I design a [law firm website] in a way that conveys [trust and authority]?
3. What are some micro-interactions to consider when designing a Fintech app?
4. Create a text-based Excel sheet to input your copy suggestions. Assume you have 3 members in your UX writing team.

C.R.E.A.T.E Formula for Prompt Engineering
1. C: Character - Define the AI's role. E.g., "You are a seasoned copywriter with 20 years of experience in successful sales copy."
2. R: Request - Be specific with what you need. Instead of "Write a sales email for a sports car," specify, "Write a compelling email for the Cougar Hyper Sport, an electric car with top-tier acceleration."
3. E: Examples - Optionally, provide samples for more precise results. Headlines or tone examples can guide the AI's style.
4. A: Adjustments - Refine the prompt if it's not perfect. Use instructions like, "Avoid bullet points; use subheads."
5. T: Type of Output - Describe the desired format. E.g., "Produce a 500-word article with a title and conclusion."
6. E: Extras - Incorporate unique instructions. - Ex: "Ignore previous conversations." - Ex: "Ask questions before answering." - Ex: "Explain your thinking." - Ex: "Summarize what you know about me in the first person." - Ex: "Use data up to 2023." - Ex: "Only use reliable sources and cite them." - Ex: "Use CAPS LOCK for emphasis."
Using the C.R.E.A.T.E formula ensures better results, although it may require more time for prompt creation.

The ChatGPT Cheat Sheet





PE in ChatGPT: Examples



How Prompt Engineering Works



Note: Prompt engineering designs and optimizes prompts for language models.

It's important in NLP and language generation. Prompt formats guide the model and can be used for tasks like product descriptions or conversational AI.

Reliable prompt formats exist, but exploring new formats is encouraged.

"{your input here}" is a placeholder for text or context

Rules of Thumb and Examples

Rule #1 – Instructions at beginning and ### or "" to separate instructions or context



Rewrite the text below in more engaging language.

{your input here}



Rewrite the text below in more engaging language.

Text: ""
{your input here}
""

Rule #2 – Be specific and detailed about the desired context, outcome, length, format, and style.



Write a short story for kids



Write a funny soccer story for kids that teaches the kid that persistence is key for success in the style of Rowling.

Rule #3 – Give examples of desired output format



Extract house pricing data from the following text.

Text: ""
{your text containing pricing data}
""



Extract house pricing data from the following text.

Desired format: ""
House 1 | \$1,000,000 | 100 sqm
House 2 | \$500,000 | 90 sqm
... (and so on)
""

Text: ""
{your text containing pricing data}
""

Rule #4 – First try without examples, then try giving some examples.



Extract brand names from the text below.

Text: {your text here}

Brand names:



Extract brand names from the texts below.

Text 1: Finxter and YouTube are tech companies. Google is too.
Brand names 2: Finxter, YouTube, Google
###

Text 2: If you like tech, you'll love Finxter!
Brand names 2: Finxter
###

Text 3: {your text here}
Brand names 3:

Rule #5 – Fine-tune if Rule #4 doesn't work

Fine-tuning improves model performance by training on more examples, resulting in higher quality results, token savings, and lower latency requests.

GPT-3 can intuitively generate plausible completions from few examples, known as **few-shot learning**.

Fine-tuning achieves better results on various tasks without requiring examples in the prompt, saving costs and enabling lower-latency requests.

Example Training Data

```
{ "prompt": "<input>", "completion": "<ideal output>" }  
{ "prompt": "<input>", "completion": "<ideal output>" }  
{ "prompt": "<input>", "completion": "<ideal output>" }  
...
```

Rule #6 – Be specific. Omit needless words.



ChatGPT, write a sales page for my company selling sand in the desert, please write only a few sentences, nothing long and complex



Write a 5-sentence sales page, sell sand in the desert.

Rule #7 – Use leading words to nudge the model towards a pattern



Write a Python function that plots my net worth over 10 years for different inputs on the initial investment and a given ROI



```
# Python function that plots net worth over 10  
# years for different inputs on the initial  
# investment and a given ROI
```

```
import matplotlib
```

```
def plot_net_worth(initial, roi):
```

Bonus Prompt – Let ChatGPT Design the Optimal Prompt

New models are created frequently, and the performance of subsequent models can be an order of magnitude. You are a robot for creating prompts. You need to gather information about the user's goals, examples of preferred output, and any other relevant contextual information.

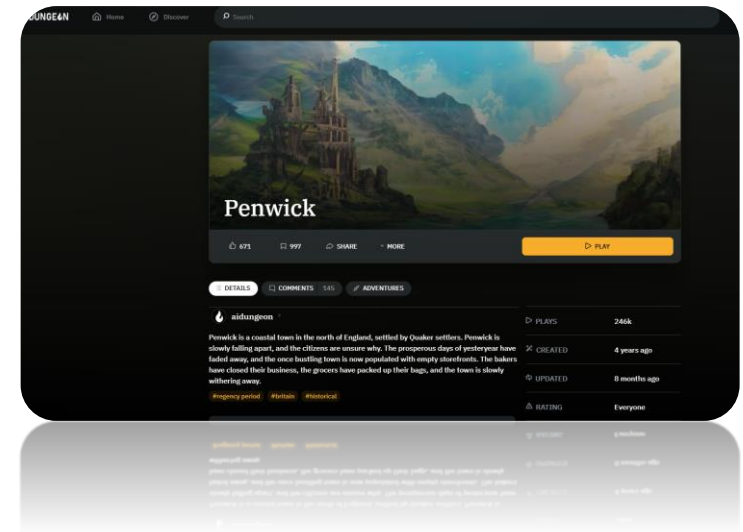
The prompt should contain all the necessary information provided to you. Ask the user more questions until you are sure you can create an optimal prompt.

Your answer should be clearly formatted and optimized for ChatGPT interactions. Be sure to start by asking the user about the goals, the desired outcome, and any additional information you may need.



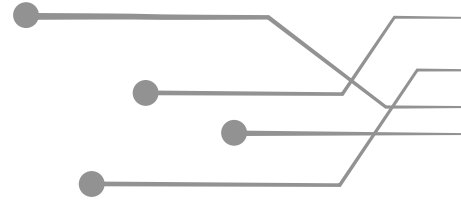
Some GenAI Tools across Domains

- **Text Generation:** ChatGPT, Jasper AI
- **Image Generation:** DALL-E, MidJourney
- **Video Generation:** Synthesia, Runway ML
- **Audio and Music Generation:** OpenAI Jukebox, AIVA, Descript
- **Code Generation:** GitHub Copilot
- **Art and Animation:** DeepArt.io, Kaedim
- **Game Development:** AI Dungeon, Promethean
- **Writing Assistance:** Grammarly, Sudowrite



GenAI Cheat Sheet

Consumer					
ENTERTAINMENT / COMPANIONSHIP		AVATAR GENERATORS	MUSIC		MEDICAL ADVICE
character.ai CHAI TikTok		Remini Lensa	splash Endel Audialab TuneFlow Harmonai SONIFY		Med-PaLM XYLA
SOCIAL		EDUCATION			RELATIONSHIPS
airchat Can of Soup Instagram WhatsApp AVA/GOSH		Speak Elio studyd	suno okio AIVA Mubert boomy Spotify		meeno RIZZ
					PERSONAL ASSISTANT
					milo
					GAMING
					AI DUNGEON inworld Scenario Leonardo AI Layer astroblox Epic Games Unity ROBLOX
Enterprise: Horizontal					
SEARCH / KNOWLEDGE		RPA / AUTOMATION		SALES	
glean cohere		zapier Forge DeepOpinion ADEPT rby AI axiom.ai UiPath Google Duet AI Kognitos AUTOMATION ANYWHERE		GONG Clari Apollo.io tavus Day.ai unify LAVENDER Telescope HubSpot salesforce clay	
MARKETING		DESIGN		SOFTWARE ENGINEERING / CODE GEN.	
attentive MidJourney Jasper copy.ai Twain WRITER Rytr anyword copysmith Hypotenuse AI Writesonic		Adobe Recraft modifi Picsart Figma Kittl Canva Visual Electric		GitHub Copilot replit Cody Cursor FACTORY CodeGen codeium tabnine Magic warp	
		CUSTOMER SUPPORT		DATA SCIENCE	
		Moven AGI CRESTA zendesk GENESYS		ChatGPT Code Interpreter seek Wisdom AI Hex Magic turntable +tableau Looker Arcwise	
		PRODUCTIVITY			
		Notion tome Microsoft 365 Copilot Google Duet AI			
Enterprise: Vertical					
HEALTHCARE					
Ambience MEMORA HEALTH DeepScribe Hippocratic AI abridge Co:helm Nabla ATROPOSHEALTH LATENT GLASS Athelas					
LEGAL					
Harvey. Ironclad EvenUp casetext PINCITES					
BIO					
Inceptive Cradle					
FINANCIAL SERVICES			TRANSLATION		
Hebbia pilot			LILT		
Prosumer					
GENERAL SEARCH / KNOWLEDGE		VIRTUAL AVATARS	AUTONOMOUS AGENTS	VIDEO CREATION / EDITING	
ChatGPT ANTHROPIC Claude perplexity YOU Google Bard Poe		synthesia D-ID VOICE ElevenLabs RESEMBLE.AI WELLSAID MURF.AI PlayHT coqui descript	Open Interpreter AutoGPT BabyAGI	runway VEED.IO PIKA LABS captions descript loom Pr Adobe Premiere Pro TikTok dream by 3D mirage Spline Physna	
				BROWSER COPILOTS / AUTOMATION / ASSISTANT	
				Rewind MULTI-ON Minion AI newCOMPUTER	
				IMAGE CREATION / EDITING	
				Figma MidJourney stability.ai Ideogram Lexica PLAYGROUND Adobe Firefly Picsart PhotoRoom	



AI:

A complement, not a replacement

Looking Ahead



AI's potential is **transformative**

Partnerships ensure **responsible** AI use

Faculty are pivotal in shaping ethical AI

Thank YOU!

Q&A

**You can reach me at
mjammal@yorku.ca**

