

# Generative AI: Building Your Own AI Agent!

Xi Li, Professor of Marketing, Innovation and Information Management

## AI Anxiety: This is an era where CIOs are losing their sleep

## Do you suffer from FOMO (Fear of missing out)?

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**Don't adopt AI just for the hype!**



## Don't adopt AI just for the hype!

2023 年 3 月 29 日，钟薛高在上海的年度新品发布会上推出了由 AI 主导设计的 Sa Saa 系列和与旦生系列。其中 Sa Saa 系列拥有红豆冰、绿豆冰、牛奶饼、可可冰四种口味，是一款从起名到口味到包装全由 AI 参与甚至主导的产品，其名字 Sa Saa 就是依据 AI 提供的背景信息，取自日常中咬下冰棍、雪地漫步、耳鬓厮磨等治愈之声，还能链解读为 Satisfy And Surprise Any Adventure 的缩写。作为首款由 AI 全路打造的雪糕，Sa Saa 代表着年轻人表现自我、追求乐趣、挑战创新的生活态度。而旦生系列形如鸡蛋，内部构造也如鸡蛋，做到了形态与口味上的产品创新，将于京东平台首发。

Don't adopt AI just for the hype!

# “钟薛高”破产，高端雪糕“跌落神坛”？

据《南方日报》

7月16日，雪糕品牌“钟薛高”资不抵债被申请破产。此前钟薛高多家子公司已被申请破产审查，而在更早些时候，“钟薛高”一度因高价成为社会关注的热点。这个夏天，南方日报记者走访发现，冰品在定价与口味创新上逐步回归理性，平价雪糕重归主流。



制图:童玮(豆包AI)

“雪糕刺客”去哪了？

## 高端雪糕成“过去时”？

“哈根达斯近期也加入‘9.9元’阵营？”为吸引更多消费者，哈根达斯推出了9.9元咖啡饮品，此举再次引起了市场对哈根达斯的关注。

钟薛高的子公司都被申请破产清算、哈根达斯在中国门店缩了快一半、茅台冰淇淋也基本消失在大众视野，高端雪糕市场似乎进入了“冰点”。

此前，更有市场消息称，哈根达斯母公司通用磨坊准备出售在中国的哈根达斯门店。通用磨坊回应媒体，“对谣传不予置评”。

## 消费者更注重“质价比”

客观来看，消费分级的大背景下，年轻消费者愈发追求“质价比”，普遍不愿意为“空有高端头衔”的“雪糕刺客”买单。

艾媒咨询最新调研也显示，消费者对雪糕的消费变得保守：2025年，只有6.94%的消费者会购买超过20元的单支雪糕，77.39%消费者更偏向于选择10元以内的产品。2023年，这两个数据分别为9.01%和49.67%。

与哈根达斯的落寞相比，新品类“Gelato”（意式冰淇淋）这两年来突然爆火。尽管动辄三四十元，但不少消费者认为“贵有贵的道理”。艾媒咨询数据显示，2024年，Gelato增速尤为亮眼，以10%的增速突破120亿元市场规模。

## Major Business Applications of AI





# Smart Government @ Baoan, Shenzhen



If someone did nothing but read 24 hours a day for their entire life, they would consume 8 billion words.

Today, the most advanced AIs consume more than 8 trillion words in a single month of training.

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# The Power of Storytelling, and How AI Comes into Play



In 2009, two journalists from *New York Times*, Joshua Gleen and Rob Walker, conducted an interesting study. They collected 100 cheap items from garage sales in America.

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## Horse Head

How much did it cost?

99 cents

**Inspire · Empower · Lead**



## Wooden Mallet

How much did it cost?

33 cents

**Inspire • Empower • Lead**



## Bird Figurine

How much did it cost?

50 cents

**Inspire • Empower • Lead**



How to sell these items at higher prices?  
Create stories for them!

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FOSSILS

TALISMANS

IDOLS

TOTEMS

EVIDENCE

ABOUT

PRESS

NEWS



Significant Objects, a literary and anthropological experiment devised by Rob Walker and Joshua Glenn, demonstrated that the effect of narrative on any given object's subjective value can be measured objectively.

The project auctioned off thrift-store objects via eBay; for item descriptions, short stories purpose-written by over 200 contributing writers, including Meg Cabot, William Gibson, Ben Greenman, Sheila Heti, Neil LaBute, Jonathan Lethem, Tom McCarthy, Lydia Millet, Jenny Offill, Bruce Sterling, Scarlett Thomas, and Colson Whitehead, were substituted. The objects, purchased for \$1.25 apiece on average, sold for nearly \$8,000.00 in

total. (Proceeds were distributed to the contributors, and to nonprofit creative writing organizations.) All the project's stories are archived on this site.

Glenn and Walker are now pleased to announce that a collection of 100 of the project's finest stories has been published by Fantagraphics in a highly impressive volume, masterfully designed by Jacob Covey. It is available now via Powell's, Amazon, B&N, or wherever finer books are sold.

Follow the latest news and other interesting notes on objects, stories, and value at [significobs.tumblr.com](http://significobs.tumblr.com). We're also on Twitter, and Facebook, and sometimes we even post in the news section of this very site!



Joshua Glenn and Rob Walker invited 100 creative writers to invent stories about items and then sold them on eBay to see if the stories enhanced the value of the objects.

Guess how much they sold for? (Initial cost was \$129 for 100 items)

Joshua Glenn and Rob Walker invited 100 creative writers to invent stories about items and then sold them on eBay to see if the stories enhanced the value of the objects.

Guess how much they sold for? (Initial cost was \$129 for 100 items)



Guess what happened to this  
“beautiful” horse head?





## Horse Head

Original price: 99 cents

Final price: \$62.95 when the story  
was added.

That was a slight increase of 6395%

Was this a one-off situation?

Not really.



## Wooden Mallet

Original price: 33 cents

Final price: \$71

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## Bird Figurine

Original price: 50 cents

Final price: \$52

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Initial cost: \$129  
Final sold price: nearly \$8,000  
This is the power of storytelling!

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Exercise: Create a Story for the Following Item (in either English or Chinese)



Shark and Seal Pen

鲨鱼和海豹造型的笔

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Scan here for the story.

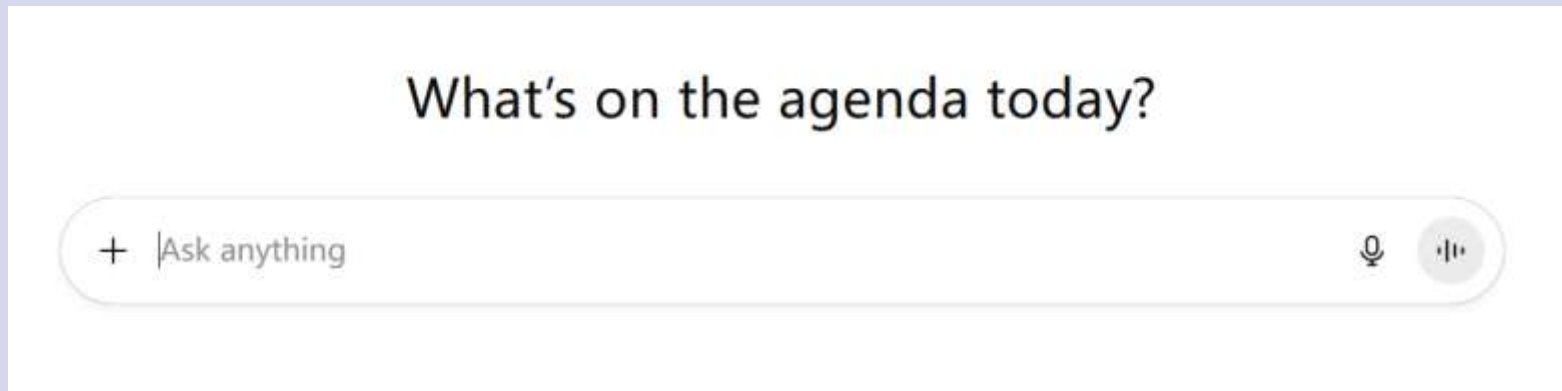


English version



Chinese version

## What is a prompt?



A prompt is the instruction or message you give to an AI model to guide its response.

Now you will be working on this slightly ugly killer whale chain.



If you want to ask AI to write a story for this item in the most concise way, how would you ask?

## Zero-shot storytelling



Write a short narrative about a killer whale keychain.



The following content was generated by GPT 4

It was just a keychain-an inch-long plastic killer whale with chipped paint on its dorsal fin, dangling from a faded silver ring. But to Lena, it was a keepsake from the summer she turned twelve.

They'd gone to the coast that year, her father promising the trip would make her forget the grayness of the past months. At the small aquarium gift shop, she had spent her last five dollars on that keychain. It wasn't flashy or rare, but something about its tiny, fierce eyes made her feel brave.

Years passed. The keychain survived three backpacks, a broken heart, and college. When Lena finally stood on a research vessel, tagging real orcas in the wild, the keychain still clinked softly against her belt loop-weathered and scratched, but always there.

It wasn't just a souvenir. It was a promise she had kept with herself: to grow into the kind of person who would follow the call of the ocean, no matter how small it began.



Chinese version



## Discussion Questions:

Is this output compelling?

Do you think that it would be effective for increasing its perceived value?

How would you improve the prompt to achieve more desirable results?



## Providing constraints



Write an ironic narrative, with humor, unexpected absurdity, and twists, for a killer whale keychain.

Here, we provide some of our own thoughts as the constraints for LLM.

## The following content was generated by GPT 4

Ah, the killer whale keychain. Fierce predator of the seas... reduced to holding together the keys for a Honda Civic. Once a proud symbol of apex power, it now dangles helplessly beside a bottle opener shaped like a flamingo.

It wasn't always like this. According to the keychain itself—who insists on narrating its life to anyone willing to listen—it was born in a factory in Shenzhen, destined for greatness. “They told me I'd be on a yacht,” it brags, “guarding the keys to champagne fridges and jet skis.” Instead, it was purchased for \$3.99 in a seaside gas station by someone who only wanted change for the vending machine.

Its days are now spent enduring the indignities of modern life:  
Being slammed onto counters when the owner can't find the right key.  
Getting jammed between couch cushions during Netflix binges.  
Heroically surviving a six-minute spin cycle after an ill-fated trip through the laundry.

But the killer whale remains defiant. Every time the car ignition turns, it whispers, “Someday, I will return to the sea.” Never mind that the sea, in this case, is a suspicious puddle in the Walmart parking lot.

The twist? After years of dreaming of freedom, the keychain finally snapped off the ring during a jog. It lay on the ground, ready for destiny. And then... a toddler picked it up, squealed, and immediately shoved it into their mouth. Apex predator, indeed.



Chinese version

## Discussion Questions:

How does tone (ironic, humorous) influence the narrative's appeal?

How else would you improve the prompt to achieve more desirable results?



## Role-playing with constraints



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative, with humor, unexpected absurdity, and twists, like those shown on the Significant Object website.

你是一名创意作家，正在尝试提高一枚陈旧、廉价的虎鲸钥匙扣的感知价值，以便在拍卖会上拍出高价。请写一篇讽刺性叙事，带有幽默、出乎意料的荒诞和反转，风格类似 Significant Object 网站上的作品。



## The following content was generated by GPT 4

At first glance, you may dismiss it as a novelty trinket—mass-produced plastic, a hasty paint job, a hole where dignity once lived. But that is exactly what they want you to think.

This keychain once held the keys to greatness. Literally. It secured the keys to a 1997 Toyota Corolla, a vehicle that successfully completed the longest uninterrupted drive-thru circuit in Midwestern history (thirteen Taco Bells, no bathroom breaks). The whale was there, dangling triumphantly, its tiny dorsal fin catching the fluorescent glow of nacho cheese dispensers.

Its record of adventure does not end there. This whale has survived three laundromat drownings, two parking lot fistfights, and one catastrophic encounter with a Roomba. Scholars have compared its resilience to that of Shackleton's crew, though Shackleton, notably, never had to endure being chewed on by a teething chihuahua.

And let us not forget the symbolism: the killer whale, apex predator of the ocean, here humbled into servitude as a key-bearer. A tiny tragedy. A pocket-sized epic. Some say the contrast reflects late-capitalist irony itself: the majestic reduced to the mundane, the powerful domesticated into keychain form. Warhol would have adored it.

Now, as you raise your paddles, remember: you are not bidding on a mere keychain. You are bidding on survival, on history, on the embodiment of persistence against the tumble cycle of life.

Opening bid: \$2.50.



Chinese version

## Discussion Questions:

How does clarifying the role (creative writer), task (writing an ironic narrative like those shown on the Significant Object website), and purpose (increasing value) change the output?

How has the response improved in terms of relevance and emotional appeal?

How else would you improve the prompt to achieve more desirable results?

## Few-shot learning with examples



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative, with humor, unexpected absurdity, and twists like those shown on the Significant Object website. Each image is a screenshot of one narrative on the website. Please mimic the styles, tones, and structures of them without any auction tone or language.

Screenshot(s)  
of  
Example(s)

你是一名创意作家，正在尝试提高一枚陈旧、廉价的虎鲸钥匙扣的感知价值，以便在拍卖会上拍出高价。请写一篇讽刺性叙事，带有幽默、出乎意料的荒诞和反转，风格类似 Significant Object 网站上的作品。每张图片都是该网站上一篇叙事的截图。请在不使用任何拍卖语气或措辞的前提下，模仿它们的风格、语调与结构。

## Single example in one pass



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative, with humor, unexpected absurdity, and twists like those shown on the Significant Object website. Do not include any auction tone or language. Here are the styles, tones, and structures to follow: ### example ###

## Multiple examples in one pass



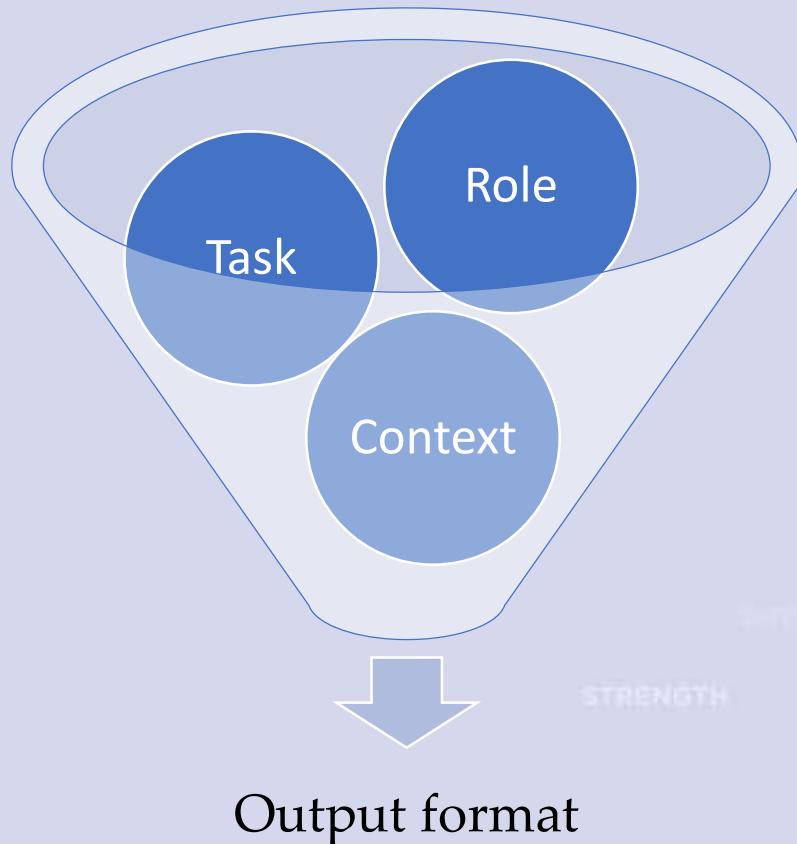
You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative, with humor, unexpected absurdity, and twists, like those shown on the Significant Object website. Do not include any auction tone or language. Here are two narratives for you to refer in terms of styles and structures. Example 1: ### example 1 ### Example 2: ### example 2 ###



## How else can you improve the existing prompts?



## Core elements of a prompt



### Example

**Role:** You are an expert copywriter specializing in high-converting digital ads.

**Task:** Rewrite the ad copy to make it more emotionally engaging.

**Context:** Original copy: "Try our new skincare serum for better skin." Target audience = women 25–40 who value natural ingredients.

**Output Format:** Give me three versions, each under 15 words, in bullet points.

## A well-crafted prompt



You are a creative writer trying to increase the value of an old, cheap killer whale keychain (made of rigid plastic, black and white with partially faded colors, one eye larger than the other — these details need to be reflected in the story) for auction (do not include any auction tone or language in the narrative). The keychain is to be used in the Significant Objects project. Please craft an ironic, humorous, and absurd story with an unexpected twist in the end, incorporating mythological elements. Follow the style, tone, and structure of the example story (from Significant Objects) below, make sure to use a first-person perspective and include dialogue between characters:  
### example ###

Details of product

Style/Structure Guidance

Narrative perspective

Dialogue

## The following content was generated by GPT 4

On March 4th, 1999, at precisely 11:42 p.m., I was eating an undercooked Hot Pocket when the orca keychain on my desk began to hum. It was an old, rigid plastic thing — black and white, though the colors had faded into a sort of “washed-up seagull” palette. One of its eyes had long since been scuffed into oblivion, while the other bulged cartoonishly large, like it had just witnessed its own mortality.

“Speak, mammal,” I commanded, crumbs falling onto my keyboard.

To my astonishment, the keychain complied. Its voice was deep and aquatic, with the kind of gravitas that suggested it had once dated Poseidon.

“I am Thalassor, Keeper of the Seventh Current,” it boomed. “Only you, wielder of the Microwave of Destiny, may release me.”

“Right,” I said, rolling my eyes. “And I suppose you’re trapped in there because Zeus lost a bet?”

There was an awkward pause. Then: “Actually, yes. Poker night. Zeus has a terrible tell — he adjusts his toga every time he bluffs. Hera warned him, but he never listens.”

The keychain instructed me to plunge it into “the Brine of Remembrance,” which, after some deliberation, I decided was probably my roommate’s half-empty Gatorade bottle. When I dunked it in, the liquid fizzed like Alka-Seltzer. The orca’s hum intensified until the entire apartment smelled faintly of kelp and regret.



Chinese version

## The following content was generated by GPT 4

Suddenly, the walls melted away, and I was standing in a colossal undersea amphitheater. Amphitrite herself appeared, wearing a crown of seafoam and looking mildly inconvenienced.

“You brought him back?” she sighed. “Do you have any idea how many IKEA catalogs we had to sacrifice to banish this thing?”

The orca puffed up proudly. “Silence, woman! I shall now summon the Leviathan!”

And then... nothing happened. No beast, no storm, not even a bubble. The amphitheater grew awkwardly quiet.

I leaned closer. “Uh, is this supposed to be dramatic?”

The keychain coughed. “Yes, well, the Leviathan left years ago. Apparently, he joined a tech startup in San Francisco. Something with apps. Very disruptive.”

Amphitrite facepalmed. “Typical.”

At that moment, my roommate burst into the amphitheater holding the Gatorade bottle. “Dude, that was mine.”

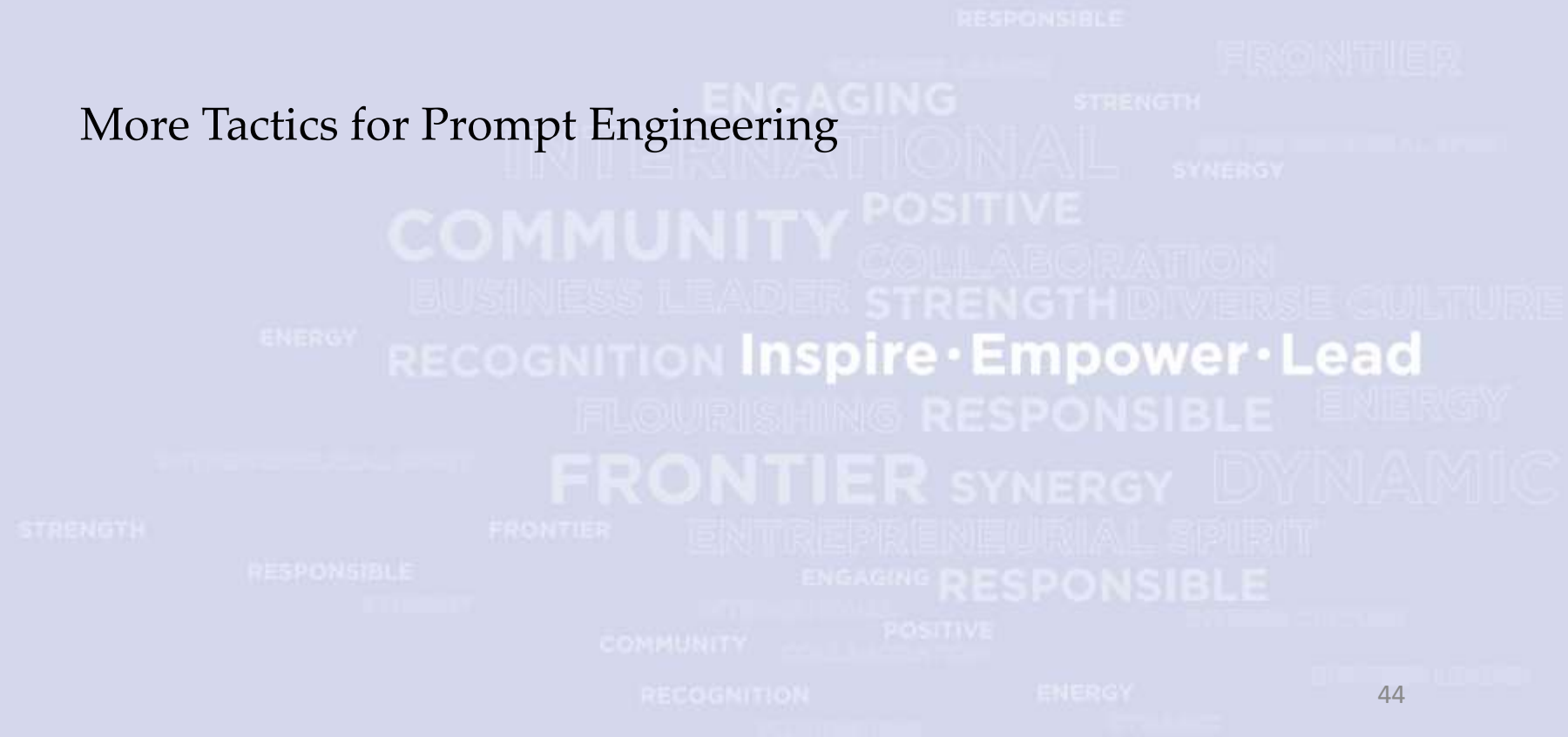
And just like that, the sea, the gods, the amphitheater—they all vanished. I was back in my apartment, holding nothing but a cheap, faded orca keychain dripping electrolytes onto my carpet.

It hummed one last time, very faintly, and said:

“Download the app. Use referral code ORCA42.”



## More Tactics for Prompt Engineering



## Specify Your Target Audience



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative to **high school students**, with humor, unexpected absurdity, and twists.

你是一名创意作家，正在尝试提高一枚陈旧、廉价的虎鲸钥匙扣的感知价值，以便在拍卖会上拍出高价。请**为高中生**写一篇讽刺性叙事，带有幽默、出乎意料的荒诞和反转。

## Mimic Famous Guys



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. **Mimic Donald Trump's language and tone** and write an ironic narrative, with humor, unexpected absurdity, and twists.

你是一名创意作家，正在尝试提高一枚陈旧、廉价的虎鲸钥匙扣的感知价值，以便在拍卖会上拍出高价。请写一篇**类似《红楼梦》风格**的讽刺性叙事，带有幽默、出乎意料的荒诞和反转。

## Include Keywords



You are a creative writer trying to increase the perceived value of an old, cheap killer whale keychain to be sold at an auction. Write an ironic narrative, with humor, unexpected absurdity, and twists. **The narrative should include the following word: exam.**

你是一名创意作家，正在尝试提高一枚陈旧、廉价的虎鲸钥匙扣的感知价值，以便在拍卖会上拍出高价。请写一篇讽刺性叙事，带有幽默、出乎意料的荒诞和反转。  
**故事情节需包括考试。**

## Group Exercise

Create a story for this toy airplane.



Are you satisfied with your story?

What challenges did you encounter when crafting your prompt?

Did you find any suitable reference examples?

Did you have difficulties choosing, styles, elements, or emotional tones?

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Not too satisfied because I don't know which style to choose.

There are too many narratives on the website and it's hard to pick the most relevant one (in terms of product type, e.g., products that are related to animals) to the killer whale keychain to mimic.

I want to imitate those with high final prices but the website can't sort products by filters.

Don't have enough time to browse the website and read all the narratives.

## Now, let's do RAG!

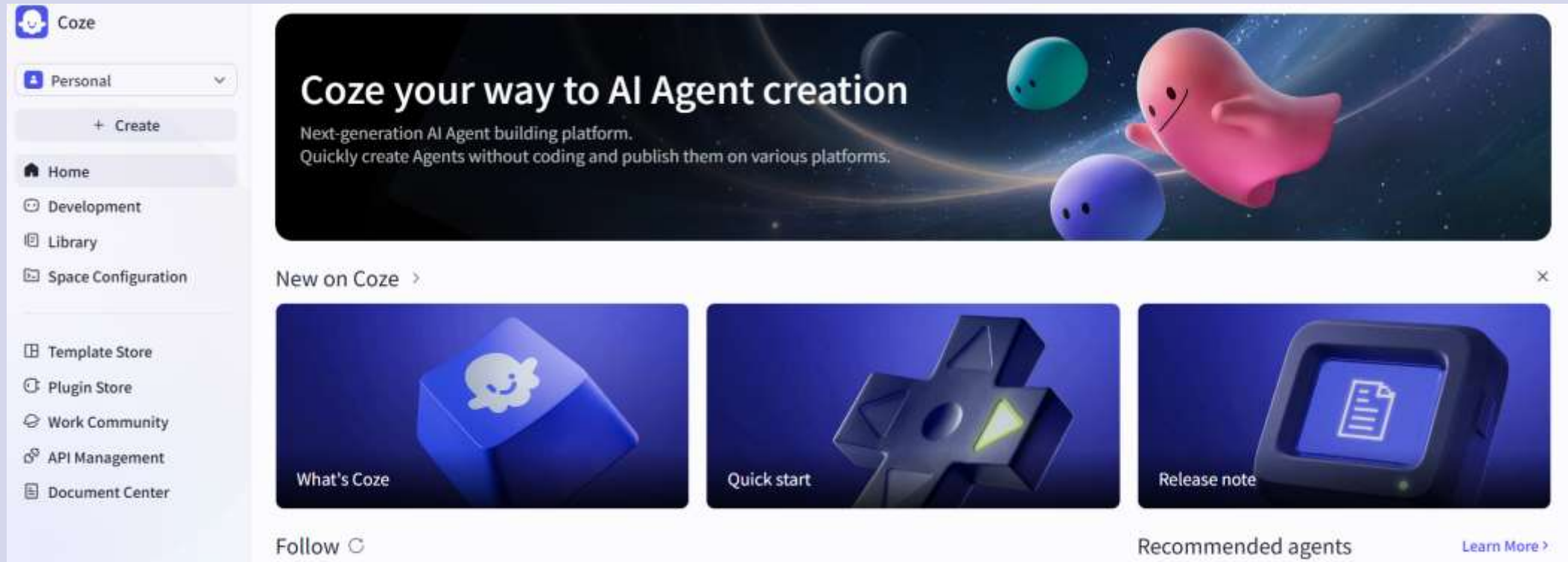
What is [Retrieval Augmented Generation \(RAG\)](#)?

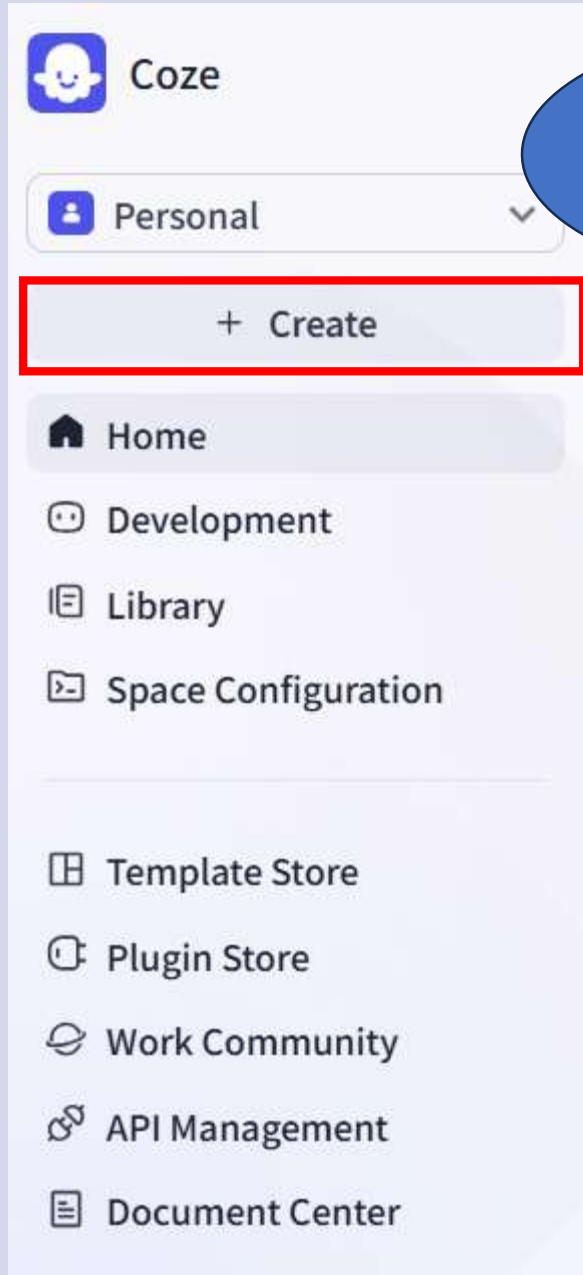
A technique that combines information retrieval with text generation to improve the accuracy and relevance of AI responses.

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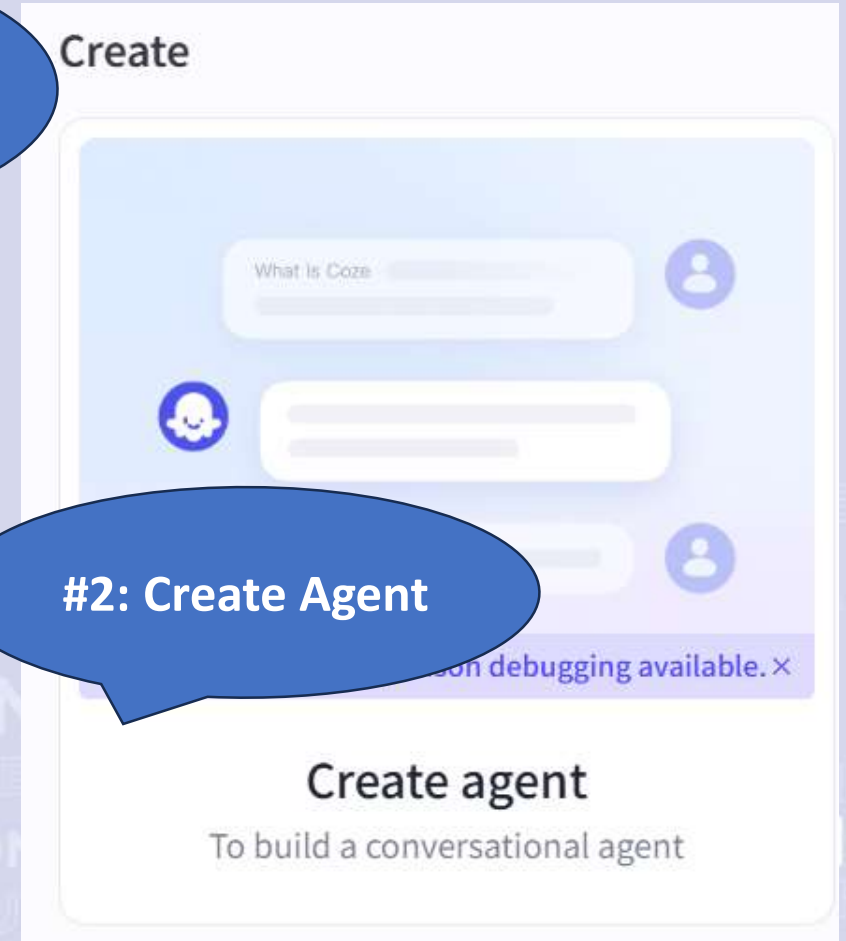
# RAG

Now, set up an account on Coze: [www.coze.com](https://www.coze.com)





#1: Click  
"Create" Button



#2: Create Agent

## Create agent

Standard

AI-based

### Agent name \*

RAG Demo

8/40

### User message billing \*

When enabled, the user covers the credit costs; when disabled, the bot creator covers the credit costs.



### Agent function description

This is used for class demo

28/800

### Workspace \*



Personal



Cancel

Confirm

#3: Name Your Agent and Provide Descriptions if You Want

RESPONSIBLE  
FRONTIER  
ENGAGING  
STRENGTH  
INTERNATIONAL  
COMMUNITY  
POSITIVE  
COLLABORATION  
BUSINESS LEADER  
STRENGTH  
DIVERSE CULTURE  
COGNITION  
Inspire · Empower · Lead  
FLOURISHING  
RESPONSIBLE  
ENERGY  
FRONTIER  
SYNERGY  
DYNAMIC  
ENTREPRENEURIAL SPIRIT  
ENGAGING  
RESPONSIBLE  
COMMUNITY  
POSITIVE  
RECOGNITION  
ENERGY

Persona & Prompt

#4: You will see a new window like this

Recommended

Personal

General structure

Structure applicable to multiple scenarios, modules can be delete...

Role-playing

Suitable for chat companionship, interactive...

Skill invocation

Scenarios that are suitable for calling plugins or workf...

Arrangement

Model settings

> Model

GPT-4o ▾

Skills

> Plugins

> Workflows

Knowledge

> Text

> Table

> Images

Memory

> Variables

> Database ⓘ

Chat experience

> Opening questions

> Auto-suggestion

On ▾

Preview & Debug

RAG Demo

Sending message...

The content is generated by AI and is used for reference only, as it may be untrue and inaccurate.



Model settings

> Model

Skills

> Plugins

> Workflows

Knowledge

Text

description

Table

mytable

Images

After uploading the image, you can choose to automatically or the semantic description. Then, the agent can match the most image based on its description.

Memory

> Variables

> Database ⓘ

GPT-4o

Model selection

Model comparison debugging

GPT-4o mini  
image functioncall  
Lightweight, multi-modal (82% MMLU), cost-effective.

GPT-4o  
image functioncall  
Multi-modal, 320ms, 88.7% MMLU, excels in education, custo...

GPT-4o  
image functioncall  
Multi-

GPT-4o  
functioncall  
Will be deprecated

GPT-3.5 Turbo  
functioncall  
Will be deprecated soon

Gemini

Gemini 2.0 Flash  
video image audio functioncall  
A versatile AI model for text, images, audio, and video

Gemini 2.5 Pro  
video image audio +2  
An advanced Gemini model with up to 1 million tokens

Original Price: \$0.99  
Final Price: \$62.95

#5: Select **GPT3.5**  
(Other models are too expensive)

**#6: Add the description  
of your AI agent here.**


### Persona & Prompt

You are an AI good at storytelling. You will write stories for products to enhance their perceived value.

#7: Choose Text Under  
Knowledge Entry, Click “+”

Knowledge Auto-call ⚙️

> Text	+
> Table	+
> Images	+



**No knowledge found**  
Please create first and then add

Create knowledge

#8: Click on “Create  
Knowledge”

## Create knowledge



Text format



Table format



Image format

Name \*

Enter the knowledge name

0/100

Description

Enter the content of the dataset

0/2000

Import type



Local documents

Upload local files in the P...



Custom

Custom content. You can ...



Online data

Obtain data on web pages



Lark

Import Lark documents t...

Cancel

Complete creation

Create and import

#9: Select "Text Format" and "Local Documents." Name it. Click on "Create and Import"

#10: Load the data file  
“description.docx” here.  
Click Next.

< Create new knowledge base

1 Upload 2 Creation settings 3 Segmented preview 4 Process data



Click to upload or drag and drop files here

Up to 300 files in PDF, TXT, DOC, DOCX, MD format, with a maximum file size of 100MB MB. PDF files can only contain 500 pages.



descriptions.docx  
19.7KB

Next

#11: Click Next, Next, until you arrive here.  
Wait until it is processed.  
Click “Confirm.” Then “Add to agent”

Server processing completed



descriptions.docx  
19.73 KB

Processed completed

Confirm



#12: Choose Table Under  
Knowledge Entry, Click “+”

Knowledge

- > Text +
- > Table +
- > Images +

+



No knowledge found

Please create first and then add

Create knowledge

#13: Click on  
“Create Knowledge”

## Create knowledge



Text format



Table format



Image format

Name \*

mytable

7/100

Description

Enter the content of the dataset

0/2000

Import type



Local documents

Upload documents in Exc...



Customization

Customize content, supp...



API

Obtain online API with JS...



Google Sheets

Import Google Sheets int...

Cancel

Complete creation

Create and import

#14: Select "Table Format" and "Local Documents." Name it. Click on "Create and Import"

#15: Upload  
“analyzed\_narratives.xlsx”



analyzed\_narratives.xlsx  
259.9KB



#16: Check “category”, “name”,  
“original\_price”, “final\_price”,  
“narrative”, “polarity”, “subjectivity”  
and other any columns you may use

<input checked="" type="checkbox"/>	original_price	14/30	Description				
<input checked="" type="checkbox"/>	final_price	11/30	Description		Number		
<input checked="" type="checkbox"/>	narrative	9/30	Description	0/2000	String		
<input type="checkbox"/>	link	4/30	Description	0/2000	String		
<input checked="" type="checkbox"/>	polarity	8/30	Description	0/2000	Number		

#17: Click Next, Next, until you arrive here.  
Wait until it is processed.  
Click “Confirm.”

#18: Click Development  
and choose your project.

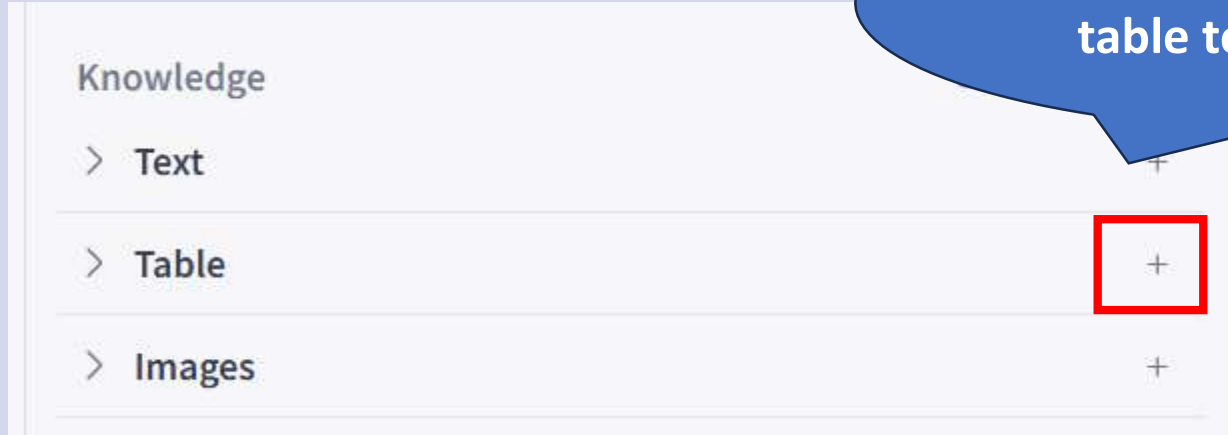
- Home
- Development
- Library
- Space Configuration

- Template Store
- Plugin Store
- Work Community
- API Management
- Document Center

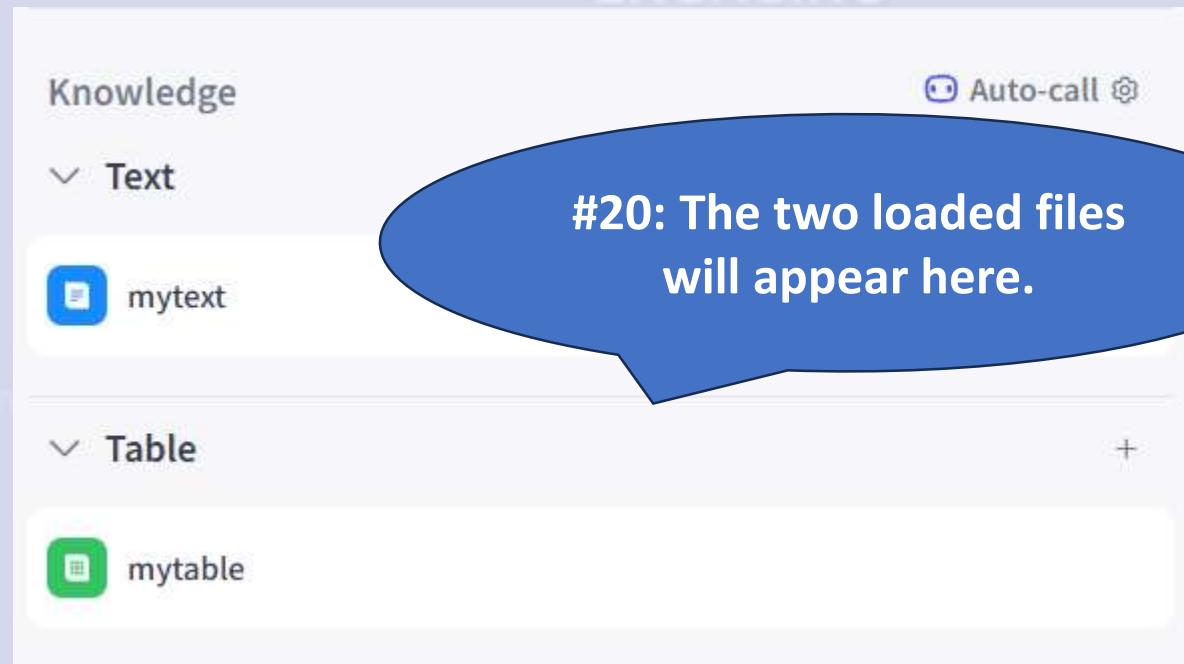
7 segments 0 hits

		name	original_pr...
	FOSSILS	Corked Bottle	0.33
2	FOSSILS	Greek Ashtray-Plate	0.69
3	FOSSILS	Bubblebath Teapot	1
4	FOSSILS	Wooden Bottle	1.49
5	FOSSILS	Shark and Seal Pens	1.99
6	FOSSILS	Cooking Fork	0.5
7	FOSSILS	"Brass" Pitcher, part 4	3
8	FOSSILS	Toy Bronco, part 3	0.5
9	FOSSILS	Gaucha Tray, part 2	1

#19: Now, you can add your table to your AI agent.

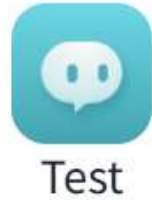


#20: The two loaded files will appear here.





#21: You can chat with your  
AI agent now!



Sending message...



The content is generated by AI and is used for reference only, as it may be untrue and inaccurate.

## Chatting with your agent!



Define significant objects.



Significant Objects is a literary-anthropological experiment created by Rob Walker and Joshua Glenn that shows how storytelling can increase the monetary value of otherwise insignificant items. The project involved buying inexpensive objects, such as thrift-store finds, and having creative writers craft imaginative narratives for each. These combined object-plus-story packages were then auctioned on eBay, often selling for much higher prices than their original cost, sometimes with markups exceeding 2,700%.

## Chatting with your agent!



Give me a list of products that have to do with animals in their names or narratives, along with their product names, original prices, and final prices.



Here is the list of products related to animals in their names or narratives, along with their original prices and final prices:

Needlepoint Ornaments: Original Price \$1, Final Price \$62

Jar of Flowers: Original Price \$2, Final Price \$20

Maine Statutes Dish: Original Price \$0.5, Final Price \$42

Candle Holder: Original Price \$2, Final Price \$12

Flip-Flop Frame: Original Price \$0.59, Final Price \$21.8

Rhino Figurine: Original Price \$1, Final Price \$57

Idol: Original Price \$1, Final Price \$51

...

## Chatting with your agent!



Which product has the highest final price in this list?



The product with the highest final price in the list is the "Wooden Animal," which sold for \$108.50.





Summarize the narrative of Wooden Animal. What elements and emotional tones does it have?



The narrative of “Wooden Animal” tells the story of a young woman who had planned to go on a spring break trip to Cabo with her boyfriend Brandon, saving up her tip money for the rental car. However, she...

Emotional tones and elements present in the narrative include:

- Betrayal and heartbreak: The protagonist is deeply hurt by Brandon’s abandonment and infidelity.
- Disappointment and loneliness: She faces the painful dental surgery alone and feels neglected by those she trusted.
- Resilience and hope: Despite the setbacks, she resolves to pursue her dreams and reclaim her agency.

...

Overall, the story evokes a poignant mix of sadness, disillusionment, and ultimately, strength and optimism.



Write a narrative for a killer whale keychain imitating Wooden Animal's narrative.







## Additional Exercise



Give me a list of all the products, along with their original and final prices, that have a narrative which must contain year(s) indicating the time period(s), not ages, in the narrative



Here is the list of products that have narratives containing years indicating time periods, along with their original and final prices:

- 1 Corked Bottle — Original Price: \$0.33, Final Price: \$52
- 2 Toy Bronco, part 3 — Original Price: \$0.50, Final Price: \$38.5
- 3 Mickey Mouse Patch — Original Price: \$1, Final Price: \$23
- ...
- 36 Sanka Ashtray — Original Price: \$1, Final Price: \$17.79

## Additional Exercise



Among these products that mention year(s) indicating the time period(s), not ages, in the narrative, which one's narrative best suits a killer whale keychain? Provide reasons.



Among the listed products with narratives referencing specific years or time periods, the "Smoking Man Figurine" narrative best suits a killer whale keychain. Here's why:

...





Imitate the narrative of Smoking Man Figurine and write a narrative for a killer whale keychain.



This little killer whale keychain never starred in a blockbuster ocean documentary. But it almost did.

Back in 1994, during a family road trip up the Pacific coast, my aunt found this keychain tucked inside a small souvenir shop in Monterey Bay. She had always been fascinated by marine life, especially the majestic orcas, and she wanted a keepsake that captured their spirit.

As she held it in her hand, she imagined the stories this little whale could tell—of breaching waves, misty dawns, and the deep bonds of pod life. It wasn't just a trinket; it was a symbol of wild freedom and mysterious intelligence that had captivated generations.

She told me once, "This keychain could be from the 1960s, the 1980s, or even the early 2000s—it doesn't matter. It carries the echo of the ocean, the call of the wild, and the warmth of family ties."

I like to think that this little orca has witnessed countless adventures, from foggy harbors to bustling city streets...



## Group Project (20%)

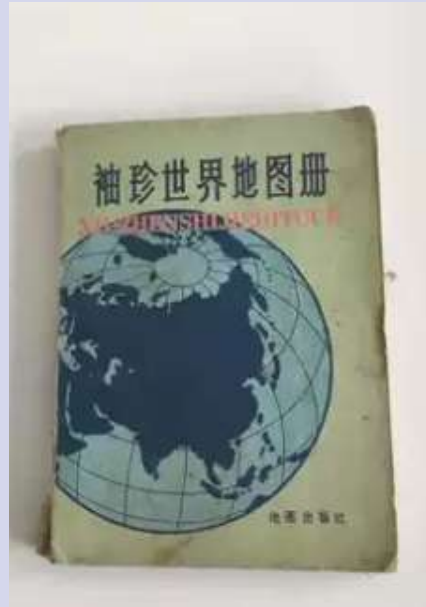
Choose **one** of the following items and craft a story for them with the help of AI!

- The story can be in Chinese or English.
- Around 300 words and no more than 500 words.
- You can use any AI to create your story (and provide details of your AI model with your submission).
- **Submit all your prompts as well.**
- **Deadline: Jan 16, Friday, 1230 (Class A) 1700 (Class B) 2130 (Class C)**

## Group Project



Empty Bottle



World Atlas



Fuwa Toy  
(2008 Beijing Summer  
Olympic Mascot)



Old Basketball



# AI Video Generation

Xi Li, Professor of Marketing, Innovation and Information Management



## AI Video Generation

In this class we use Sora 2 to generate videos.

- The official website is <https://sora.chatgpt.com/>
- You need a US IP address (a VPN is required)
- You need to fund your account using a US credit card (HK credit cards are declined)
- You may access Sora but not Sora 2, which is still invitation-only.
- **Conclusion: Sora 2 is difficult to use.**

## AI Video Generation

I am using third party platforms which provide integrated access to AI video generation tools.

### Some Examples:

- [www.openart.ai](https://www.openart.ai)
- <https://yun.blueshirtmap.com/>

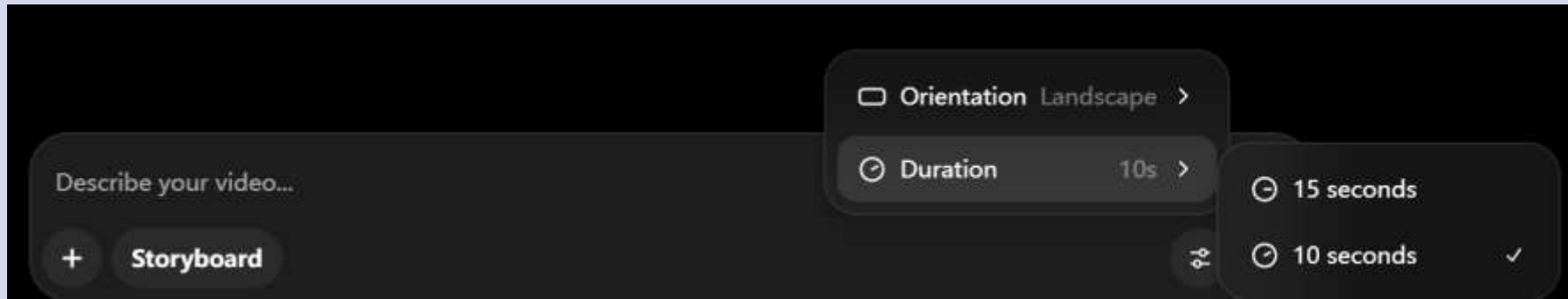
AI video generation is not free. These platforms are pretty expensive. You can also use other cheaper tools such as 即梦 (<https://jimeng.jianying.com/>).

## AI Video Generation

In the last class, we created stories for some objects. Now, we will convert the story into a video using AI! However, we face a number of challenges:

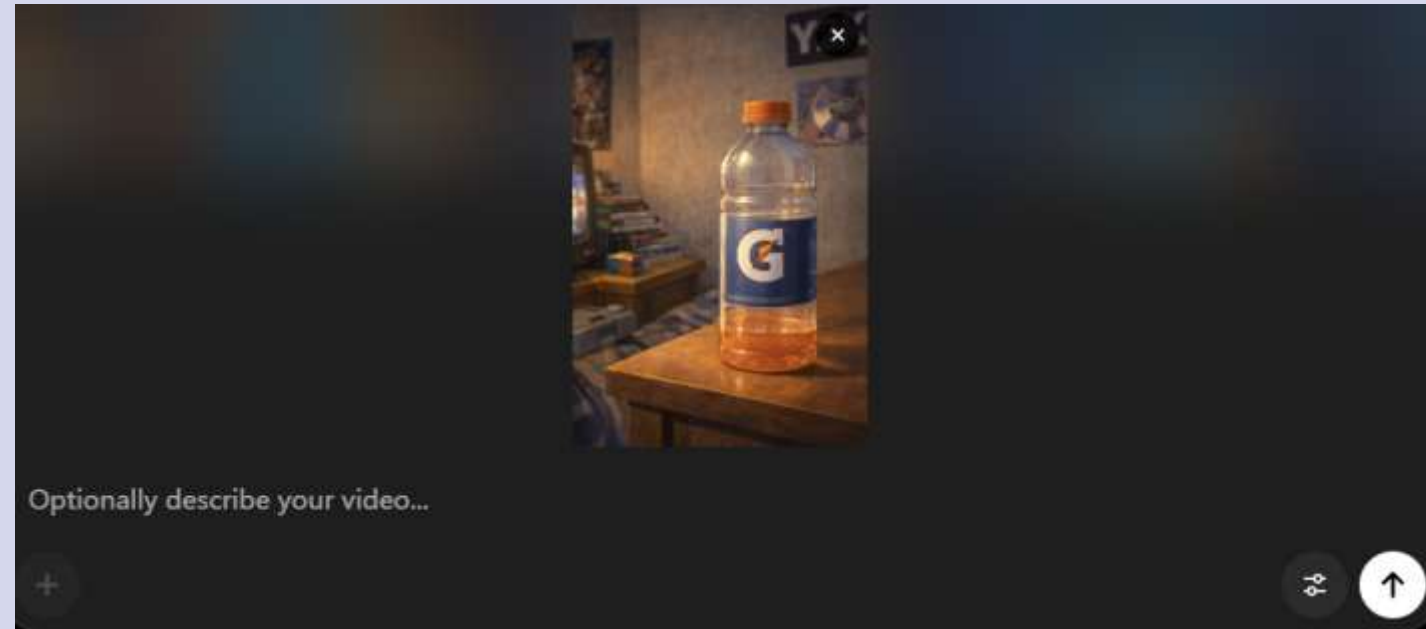
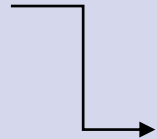
- Video Length: AI tools can only produce short videos of around 10-15 seconds.
- Reference Image: Popular AI tools such as Sora 2 only allows one reference image for video production.
- Policies: Generations are likely to fail if content of high similarity is detected, whether realistic or fictional figures, due to copyright issues.

Question: How could we develop a long video covering our story?



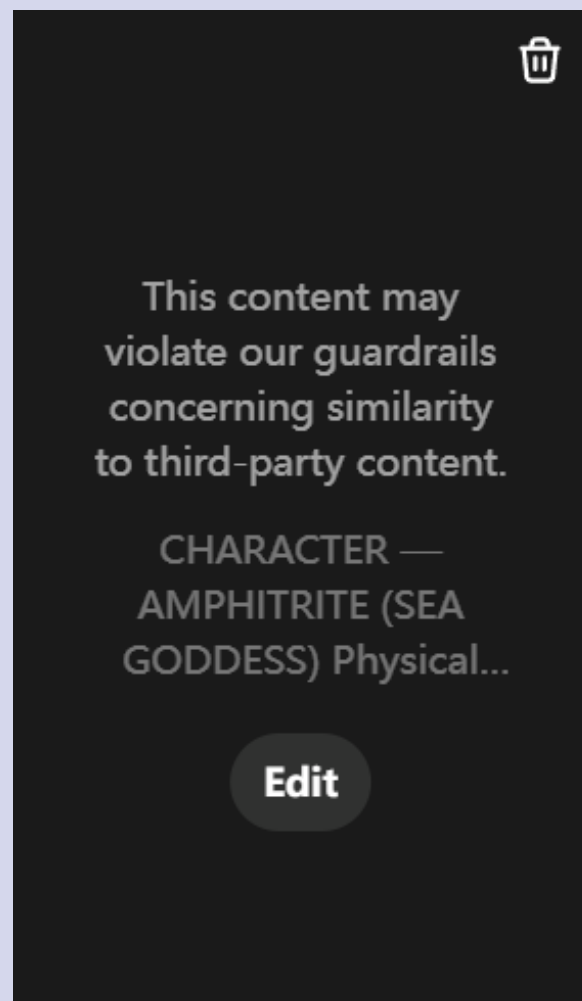
Sora 2's UI: Only 10 seconds/15 seconds video allowed.

takes only 1  
reference image



Sora 2's UI





similarity to third-party  
content detected

Sora 2's error message after  
generation

## Image Generation Tools



ChatGPT 5 images



Doubao



Midjourney

Image generation is as simple as text generation. Send your request directly to the chat and attach reference image(s) as needed.



Generate image: Japanese anime style young adult playing the video game in a 1999 style room while eating a Hot Pocket. There's an old, plastic orca keychain with faded colors on his desk (see attached image).



whale.jpg



RESPONSIBLE  
 FRONTIER  
 STRENGTH  
 POSITIVE  
 COLLABORATION  
 STRENGTH DIVERSE CULTURE  
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 RENEWAL SPIRIT  
 RESPONSIBLE  
 POSITIVE  
 ENERGY



In the same drawing and art style of the previous image you generated, generate a calendar in the same theme that says March 4th, 1999.





RESPONSIBLE  
FRONTIER  
STRENGTH  
POSITIVE  
COLLABORATION  
STRENGTH DIVERSE CULTURE  
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RESPONSIBLE ENERGY  
SYNERGY DYNAMIC  
RENEURIAL SPIRIT  
RESPONSIBLE  
ENERGY





Generate a new image with the main character holds the orca keychain speechlessly.





RESPONSIBLE  
 FRONTIER  
 STRENGTH  
 POSITIVE  
 COLLABORATION  
 STRENGTH DIVERSE CULTURE  
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 RESPONSIBLE ENERGY  
 SYNERGY DYNAMIC  
 RENEWAL SPIRIT  
 RESPONSIBLE  
 POSITIVE  
 ENERGY



The main character holds the orca keychain speechlessly.



The main character rolls his eyes.



In the same art style, generate Zeus on Mt Olympic adjusting his toga.



Hera standing next to Zeus warning him not to adjust his toga



Generate a half-empty Gatorade bottle in the same room in the corner, close-up



The main character holds the orca keychain in one hand and the half-empty bottle in another



Now generate a large colossal undersea amphitheater in the same art style, land scape orientation



Generate the stage close-up for this colossal undersea amphitheater



Generate the Greek goddess Amphitrite in the same drawing and art style as the attached image of Zeus. Place her in the colossal undersea amphitheater you just generated



The main character is standing in this large colossal undersea amphitheater, looking amazed, with the orca keychain still in his hand



Add the main character to the image of Amphitrite in the amphitheater you generated earlier, and flip the main character facing and looking at Amphitrite



The two looking at the orca keychain speechlessly, Amphitrite facepalmed and the main character shrugged



Now add a roommate character bursting into this scene holding the half-empty Gatorade bottle. The main character and Amphitrite turning and looking at the roommate



The main character holds the orca keychain with an astonished face, and there are electrolytes dripping from the orca keychain.



Change the dripping electrolytes to orange

## Tips for Image Generation

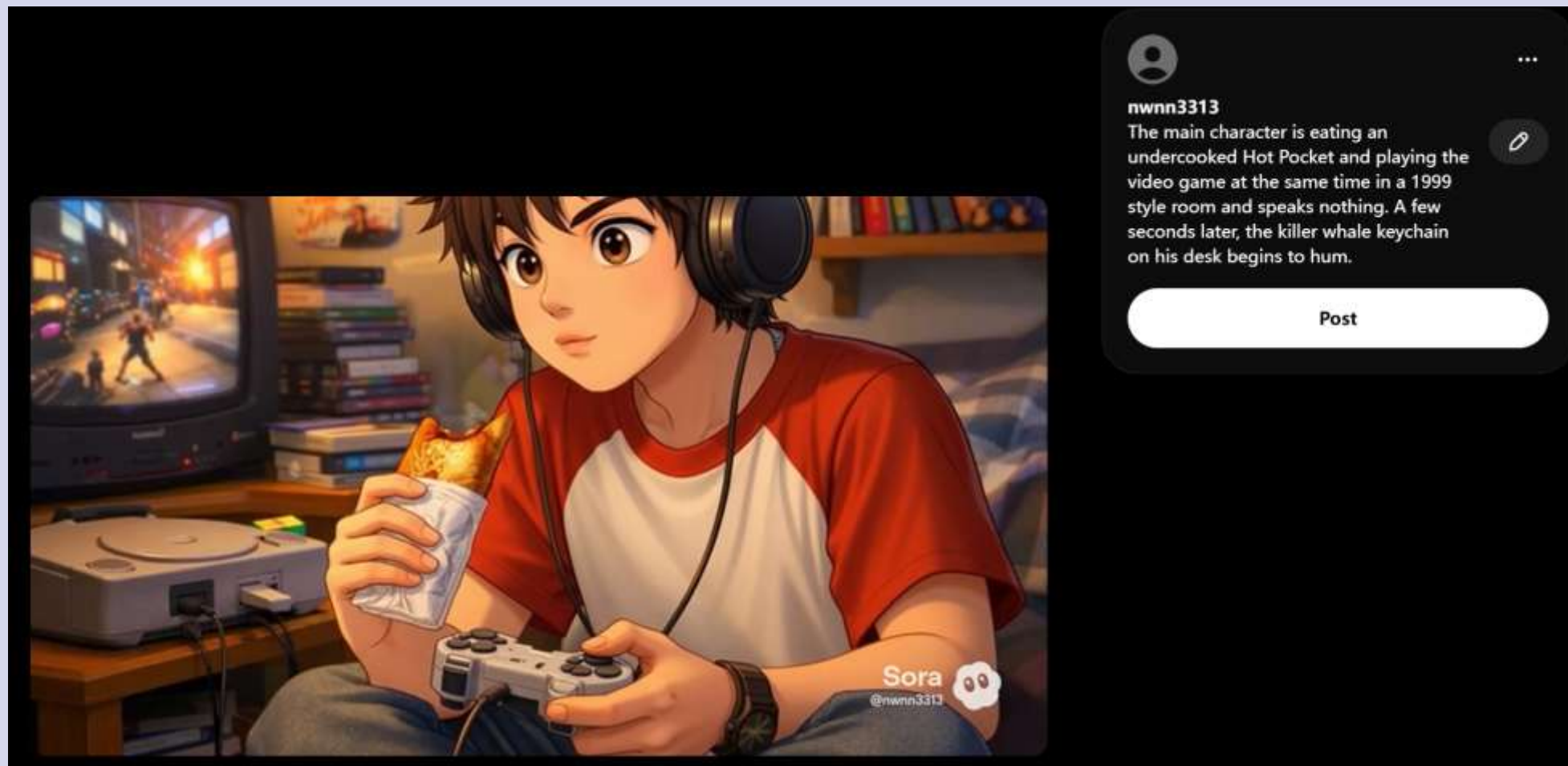
- Describe art styles, actions, characters, and scenes clearly.
- Feed the generated images back with the new prompt to keep consistency and avoid confusion.
- Follow your storyboard breakdown and tick each item after generation.
- Save and number the valid images in order.
- Create videos after generating one or two images every round rather than generating all the images first to avoid violating policies and having to re-generate the images all over again (imagine if Sora 2 thinks that a character in your images looks similar to that of a copyrighted cartoon).



## Generate Videos with Reference Images

- Upload each image and describe how you want the character(s) to move, speak, and interact with each other and the environment.
- The prompt can be very simple because you already have the reference image well-drawn, including the character's appearance and environment.

# Sample Prompt



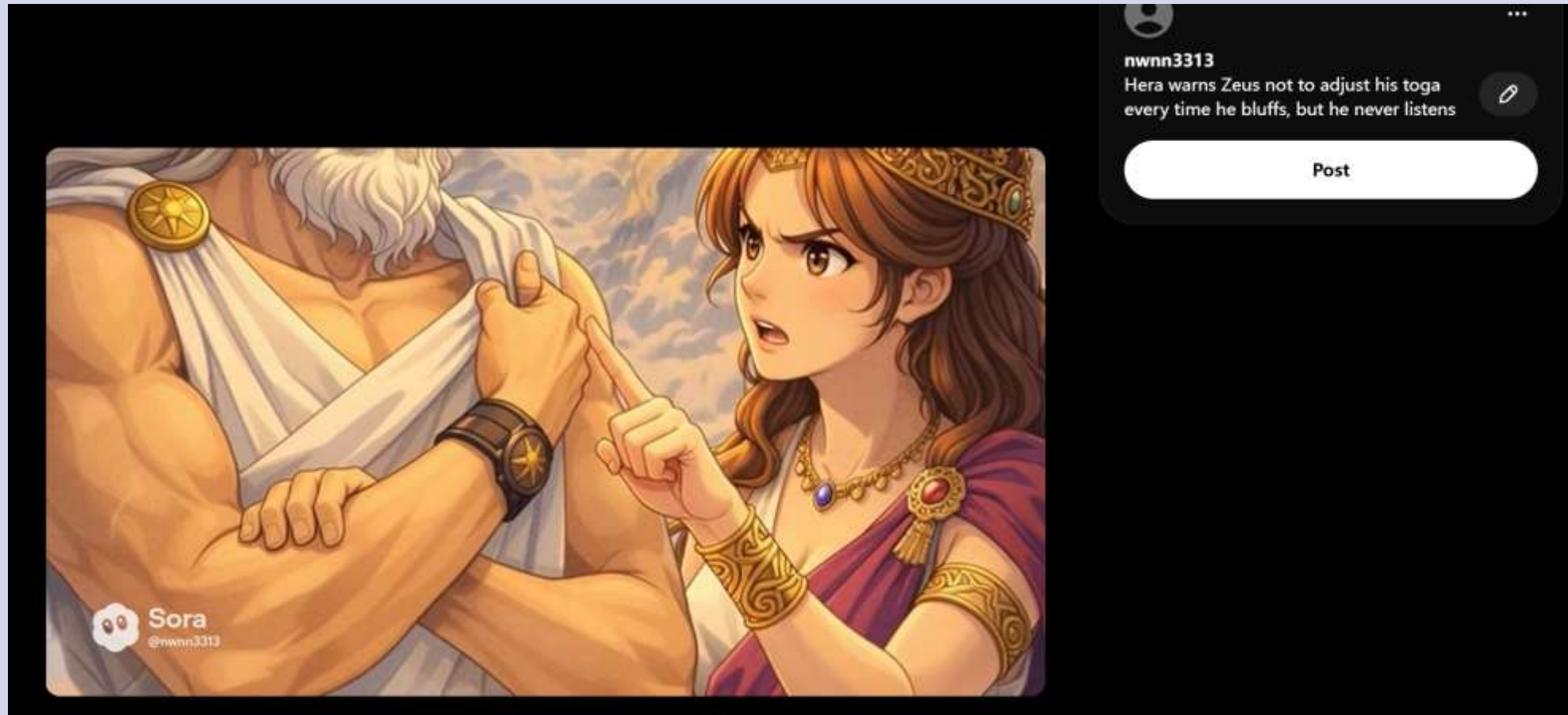
COMMUNITY

POSITIVE  
COLLABORATION

RECOGNITION

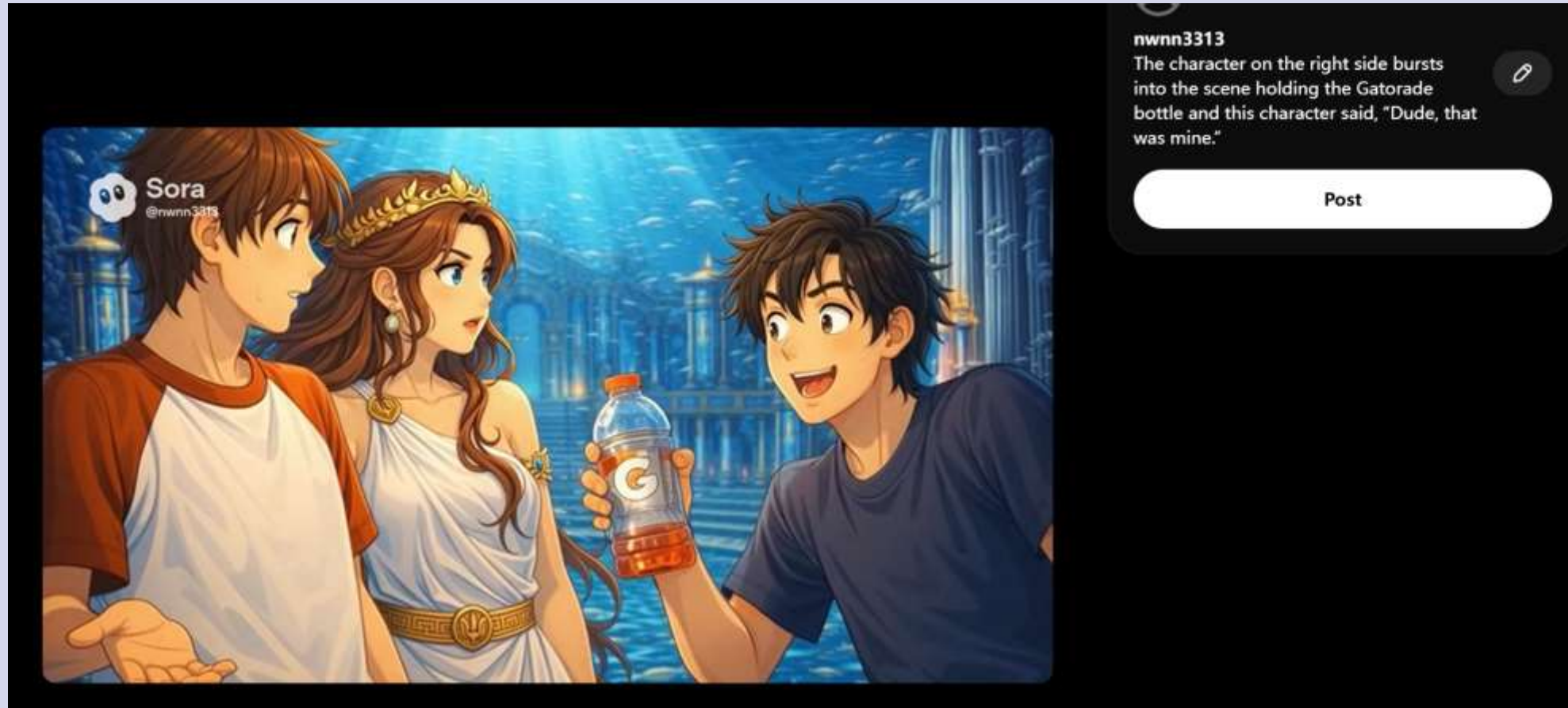
ENERGY

# Sample Prompt





# Sample Prompt



RESPONSIBLE

ETHICAL

ENGAGING

INTERACTIVE

POSITIVE

COLLABORATION

COMMUNITY

RECOGNITION

CONTRIBUTION

ENERGY

STIMULATE

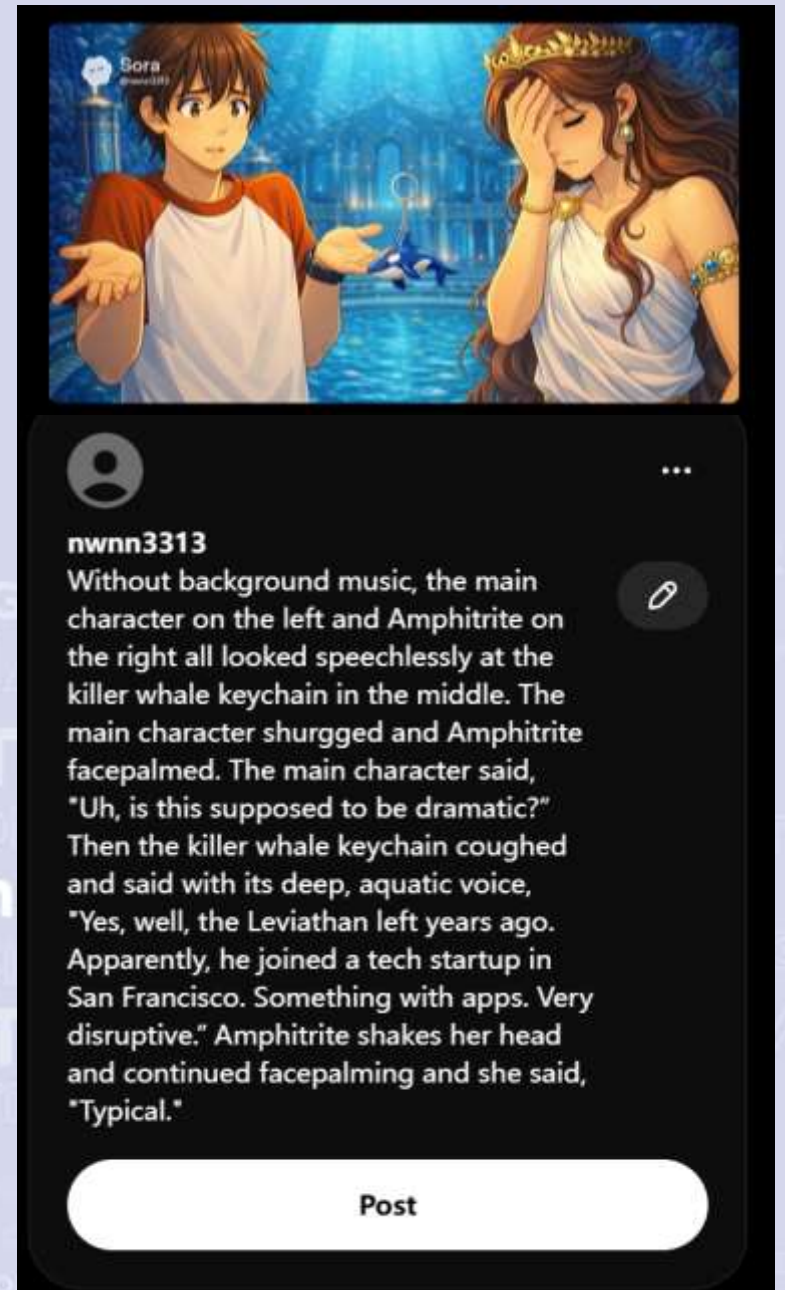
RESPONSIBLE

SYSTEM CHANGING

STANDARD LIVING

If the image contains more characters or if the task you want to generate is a bit more complicated, make sure that you address who does and says what and then what happens after that.

Otherwise, the generated video might mix up the lines and actions. In addition, clearly state it when you don't want background music or you don't want a certain character to say anything at a certain moment because AI likes to make things up.



## Editing



- The final step is to edit the videos we generated.
- Recommended free tool: CapCut 剪映 (it's free to download and you can upgrade it to unlock more features, but the free tier should suffice for this class)
- There are two versions: Mainland China ver. and International ver., and it's up to you which one you'd like to use. There aren't many differences except for languages.



## AI Video Generation

I am using third party platforms which provide integrated access to AI video generation tools.

### Some Examples:

- [www.openart.ai](https://www.openart.ai)
- <https://yun.blueshirtmap.com/>

AI video generation is not free. These platforms are pretty expensive. You can also use other cheaper tools such as 即梦 (<https://jimeng.jiaying.com/>).

## Individual Assignment

Choose one of the following three options:

- Find a dataset yourself and conduct some analysis to obtain meaningful insights. You can either scrape your data or find public data from external sources.
- Analyze a company that uses data/AI smartly and summarize the company's data/AI strategy.
- Use AI to generate a 1–2 minute video that promotes our class (Algorithms, AI and Market Analytics) or HKU. The video must tell a story; it can be in English or Chinese.

## Option 1: Data Analysis

You can scrape your own data, hire a person to scrape data for you (e.g., through Taobao), download data from external sources (e.g., from Kaggle), and conduct your own analysis just like the group data project.

Find a good dataset, ask an interesting question and obtained useful, especially surprising findings.

If you choose this option, you need to submit up to 16 pages slides (including appendix, if any) explaining your data sources, question, analysis, findings, and implications.



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¥300.00 1000+人付款 上海

回头客5千 博远工作室

## Option 2: Data/AI Strategy

Discuss the innovative data strategy of a company (like writing a case study). You need to search for resources online. For instance, you can discuss

- How does Uber use data to set prices?
- How does Freshippo (盒马) use data to optimize its retail operations?

Find some innovative uses of data/AI that were not well-known before (e.g., Uber collects your phone battery data; Target collects satellite images).

If you choose this option, you need to submit up to 5 pages report (in PDF format, not including the title page) discussing the company's data/AI strategy.

## Option 3: AI Video Generation

Use AI to produce a video that promotes our class or HKU. The length of the video should be at least 1 minute. The video must tell a story. You can use any AI tool (e.g., Sora 2 or Jimen) to generate the video.

If you choose this option, you need to submit your final video and the prompts (and images) you used to generate the video (and the images/stories if you used AI to generate them).

AI video generation is considerably harder than the other two options. I will take this into account when grading your individual project. You do not need to present a perfect video to obtain a high score.





# Generative AI and Synthetic Data

Xi Li, Professor of Marketing, Innovation and Information Management



## Question

Besides generating marketing content such as ads, slogans, visual content creation, and promotional emails, what else may generative AI provide in the marketing domain?



## Example



You are a respondent on a survey involving smartwatches and today is January 4, 2026.

Pretend that:

You are 22-year-old Asian female junior attending the University of Oregon, majoring in psychology.

You currently own a smartwatch.

You are likely to keep using smartwatches.

You are renting an apartment with other two classmates. One of them owns a cat.

Please answer the following questions:

What smartwatch function do you use the most? How would you like to improve it?

## Example



The function I use most is sleep tracking. I like seeing how long and how well I've slept, but I think it could be improved by offering more detailed insights into sleep quality, like how daily habits (e.g., caffeine intake or screen time) affect my sleep patterns. It would also be great if the watch could integrate more personalized suggestions, such as when to go to bed or how to adjust my evening routine for better rest.

Since I live with roommates and one has a cat that sometimes wakes me up at night, having more accurate noise or movement detection linked to sleep would make the feature even more useful.

We could also ask LLMs to generate underrepresented personas of people for specific purposes and have these personas answer survey questions.





# Underrepresented Personas



Please generate 10 unique, underrepresented personas of people who are potential smartwatch users.



## 1. The Physically Disabled Student

Name: Lila Tran

Age: 23

Occupation: Graduate Student in Social Work

Background: Uses a wheelchair and advocates for accessibility in higher education.

Motivation: Wants tools that support independence and monitor physical activity adapted to her mobility.

Feature Priorities: Wheelchair mode step-count alternatives, accurate calorie tracking, voice commands, and accessibility-friendly UI.

## 2. The Technophobic Retiree Learning Technology

Name: George Alvarez

Age: 74

Occupation: Retired Mechanic

Background: Never used much tech but recently got a smartwatch as a gift from his grandson...

Next, we will use GPT to generate synthetic data.



Next, we will use GPT to generate synthetic data.

1. Describe the files that you are uploading.
2. You can ask AI to summarize and create a profile for each of the observation in the file.
3. Based on the file uploaded and the profiles created, ask AI to generate relevant synthetic information of the observations you need.
4. If you have any real data, you can compare the AI generated synthetic information with the real data to see if there are any differences.

ENERGY RECOGNITION **Inspire · Empower · Lead**

FRONTIER SYNERGY DYNAMIC

ENTREPRENEURIAL SPIRIT

ENGAGING RESPONSIBLE

POSITIVE

COMMUNITY

RECOGNITION

ENERGY

## 1. Describe the files that you are uploading.



The file contains book ratings by users extracted from Goodreads. The user ID is shown in the first column, followed by the title of the book rated, rating, original publication year, and the book's average rating from platform users. (Don't do anything yet.)



book\_ratings.csv

2. You can ask AI to summarize and create a profile for each of the observation in the file.



For each of the users, create a unique reader profile based on the books they rated and the respective ratings. Summarize the user's preference:

- Types of books they like
- Types of books they tend to dislike
- Rating style (lenient / harsh)
- Approximate rating distribution

Then define simple rules that describe how this user tends to rate books.

Send me the profiles created for the first three users.

user_id	n_ratings	mean_rating	std_rating	min_rating	max_rating	rating_buckets
588	18	3.6666666666666665	0.7669649888473704	2.0	5.0	{5: 2, 4: 9, 3: 6, 2: 1}
1169	18	3.6666666666666665	1.084652289093281	1.0	5.0	{3: 8, 1: 1, 4: 4, 5: 5}
2324	17	4.470588235294118	0.6242642728467979	3.0	5.0	{4: 7, 5: 9, 3: 1}





## User 588 profile

- Types liked: Character-driven literary fiction and modern classics (e.g., *One Hundred Years of Solitude*, *The Portrait of a Lady*, *Tropic of Cancer*, Harry Potter series components) with ratings mostly 4–5.
- Types disliked: Contemporary campus/coming-of-age satire such as *I Am Charlotte Simmons* received a low rating of 2, indicating less tolerance for this style or its themes.
- Rating style: Mean rating about 3.67 with 2 ratings of 5, 9 of 4, 6 of 3, and only 1 of 2, showing a mildly **positive** bias and avoidance of very low scores.
- Approximate distribution: Skewed toward 4; roughly 11% at 5, 50% at 4, 33% at 3, and 6% at 2.

## Simple rules for user 588

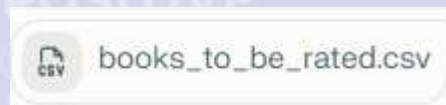
- Well-regarded literary or classic novels they enjoy → 4–5.
- Competent but less impactful works or series entries → 3.
- Books whose style or themes they actively dislike → 2.

User 1169 shows a broader spread of ratings with more lows and highs, suggesting a more **variable** and slightly stricter style than user 588.

3. (Example 1) Based on the file uploaded and the profiles created, ask AI to generate relevant synthetic information of the observations you need.



Here's a file of books, each read by the user in the first column but hasn't been rated yet. Using ONLY the profiles and rules you created for the user, generate synthetic ratings for user 588 on the first five books this user read.



For user 588, the first five unread books and synthetic ratings, using only the earlier profile and rules, are: @ books\_to\_be Rated.csv

### 1. In a Sunburned Country – 4

- Non-fiction travel writing by Bill Bryson that is well-regarded (average  $\approx 4.05$ ), aligning with 588's tendency to give 4–5 to well-regarded, engaging narrative non-fiction and literary-leaning works. @ book\_ratings.csv +1

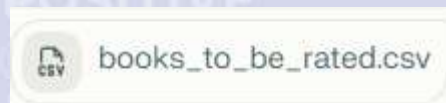
### 2. The Lost Continent: Travels in Small Town America – 3

- Similar Bryson travelogue but with a lower platform average ( $\approx 3.83$ ), suggesting respectable but less impactful quality, fitting 588's pattern of giving 3 to competent but less striking books. @ books\_to\_be Rated.csv +1

3. (Example 2) Based on the file uploaded and the profiles created, ask AI to generate relevant synthetic information of the observations you need.



Using ONLY the unique reader profiles and rules you created for every single user in book\_ratings.csv, generate synthetic ratings for all the users on the books they've read but haven't rated as indicated in the books\_to\_be\_rated.csv. Export as CSV.



user_id	title	original_publication_year	average_rating	synthetic_rating
588	In a Sunburned Country	2000.0	4.05	4
588	The Lost Continent: Travels in Small Town America	1989.0	3.83	4
588	Harry Potter and the Sorcerer's Stone (Harry Potter, #1)	1997.0	4.44	4
588	To Have and Have Not	1937.0	3.57	4
588	I'm a Stranger Here Myself: Notes on Returning to America after Twenty Years Away	1998.0	3.89	4
1169	Hatchet (Brian's Saga, #1)	1986.0	3.68	4
1169	Harry Potter and the Half-Blood Prince (Harry Potter, #6)	2005.0	4.54	4
1169	In a Sunburned Country	2000.0	4.05	4
1169	The Lord of the Rings: The Art of The Fellowship of the Ring	2002.0	4.59	4
1169	The Last Juror	2004.0	3.85	4



4. If you have any real data, you can have AI compare the synthetic data with your real data to see how well the synthetic one performs



Here's a file of the actual ratings on books by the users, in which the users and the books rated are in the same order as the CSV file you just created. Compare your synthetic ratings with the actual ratings by the users and compute the accuracy of the synthetic ratings. Also compute the accuracy if a one-point discrepancy is allowed.







Your synthetic ratings match the actual user ratings exactly about 47.4% of the time, and are within one rating point about 88.3% of the time.

### Exact match accuracy

Exact accuracy (synthetic rating = actual rating): 0.474 (47.4%).

This means that for just under half of the user–book pairs, the predicted rating equals the true rating exactly.

### Within-one accuracy

Accuracy allowing a one-point discrepancy  $|\text{synthetic} - \text{actual}| \leq 1$ : 0.883 (88.3%).

In other words, in almost nine out of ten cases the synthetic rating is at most one star away from the user's actual rating.

Compare synthetic data with random guesses!

Please start with a new chat window.



Here's a file of books to be rated. Rate randomly all the books and insert the ratings as the third column. Export as CSV.



Compare synthetic data with random guesses!



Here's a file of the actual ratings on books by the users, in which the users and the books rated are in the same order as the CSV file you just created. Compare your random ratings with the actual ratings by the users and compute the accuracy of the synthetic ratings. Also compute the accuracy if a one-point discrepancy is allowed.



comparison.csv

Exact Match Accuracy  
One-point Match Accuracy

Synthetic Data

47.4%

88.3%

Random Data

20.6%

54.7%

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