



計算思維與人工智慧應用導論 生成式AI & 人工智慧倫理

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本投影片僅供教學用途，
所用圖檔都盡量附上原始來源，
如有侵權煩請告知，將立即修正

週次	課程主題	課程內容與指定閱讀	教學活動與作業	學習投入	
				時間	
				課堂	課程
1	計算思維簡介	社會情境脈絡與未來發展 書目：1, 2, 3	課程講授	3	3
2	計算思維	基本內涵與核心概念 書目：1, 2, 3	課程講授、討論	3	5
3	功能模組	問題拆解與型態辨認 書目：4, 5, 6	課程講授、討論	3	5
4	功能模組	抽象思考與演算邏輯 書目：4, 5, 6	課程講授、討論	3	5
5	國慶日	國定假日		0	0
6	類比至數位轉換 & 電腦運算架構	類比與數位訊號的基礎概念及類比轉換至數位訊號的原理 & 電腦組成元件與其運算架構 書目：7 chapter 1 & 4 & 5	課程講授、討論	3	5
7	大數據應用	大數據中資料科學的基礎分析概念與商業相關應用	課程講授、討論	3	5
8	學習成果測試	期中評量/作業活動	主題設計討論與同儕學習	3	6
9	人工智慧發展	人工智慧發展歷程與未來趨勢	課程講授、討論	3	5
10	運算思維測驗	國際運算思維挑戰賽	線上測驗	3	3
11	人工智慧技術與應用 & 生成式人工智慧	人工智慧各式技術與應用案例 & 生成AI(如：ChatGPT、Midjourney) 書目：8	課程講授、主題設計討論與同儕學習	3	5
12	人工智慧模型實作	Nocode AI 練習 – Rapidminer & 人工智慧專題實作 書目：9	課程講授、程式演練	3	6
13	人工智慧倫理	未來人工智慧應用上的倫理問題 & 人工智慧專題優化	課程講授、討論	3	5
14	人工智慧應用場景	人工智慧跨域應用專家講座	課程講授	3	6
15	人工智慧專題	海報展示	學習成果實作分享	3	6
16	計算思維與人工智慧	期末報告	學習成果實作分享	3	6
17	彈性補充教學	人工智慧相關競賽經驗交流	數位平台交流	0	5
18	彈性補充教學	校園人工智慧應用發想	數位平台交流	0	5

AI識才預測： 用AI協助企業找到對的人

你未來的工作績效如何? AI已經知道!

12月12日(二) 9:00-11:30

研究大樓203教室

開放全校參加



講者：周千翔博士 (Devin Chou)

Vice President of Sales, Greater China at PerceptionPredict AI

【講座介紹】本次的演講將介紹AI識才預測，了解PerceptionPredict系統在企業中怎麼發揮績效預測的作用，如何優化既有的招聘任用方式，並展示提升選才公平性與效率的相關說明與案例。歡迎一起來了解AI如何在人才管理上開創新局面!

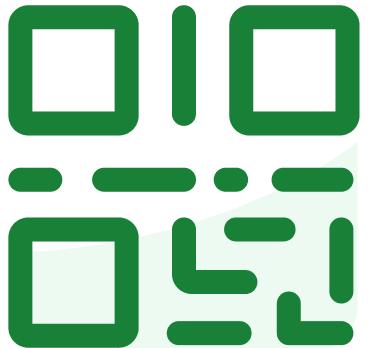
【講者介紹】

畢業於政大資管的周博士是PerceptionPredict業務副總，負責推動大中華地區的業務和發展。作為一名社會科學研究者，他對於人類行為研究的興趣不僅在學術界，更跨足現實商業場景。因為對於人類特質分析的投入，逐漸使他的職涯焦點轉向了AI人才分析。這使他遇見了PerceptionPredict，這是一個深植於人性的AI技術解決方案，可以為每家公司找出推動人才績效表現的獨有特質組合，並預測人才未來績效。



人工智慧跨域研究中心
Interdisciplinary Artificial Intelligence Center

slido



Join at [slido.com](https://www.slido.com)
#2931767

- ⓘ Start presenting to display the joining instructions on this slide.



AI 中心
IAIC

擴散模型(Diffusion model)

DALL·E 2
Midjourney



<https://scale.com/guides/diffusion-models-guide>

Generative Adversarial Network (GAN)

生成對抗網路

鑑定師 vs. 仿畫家

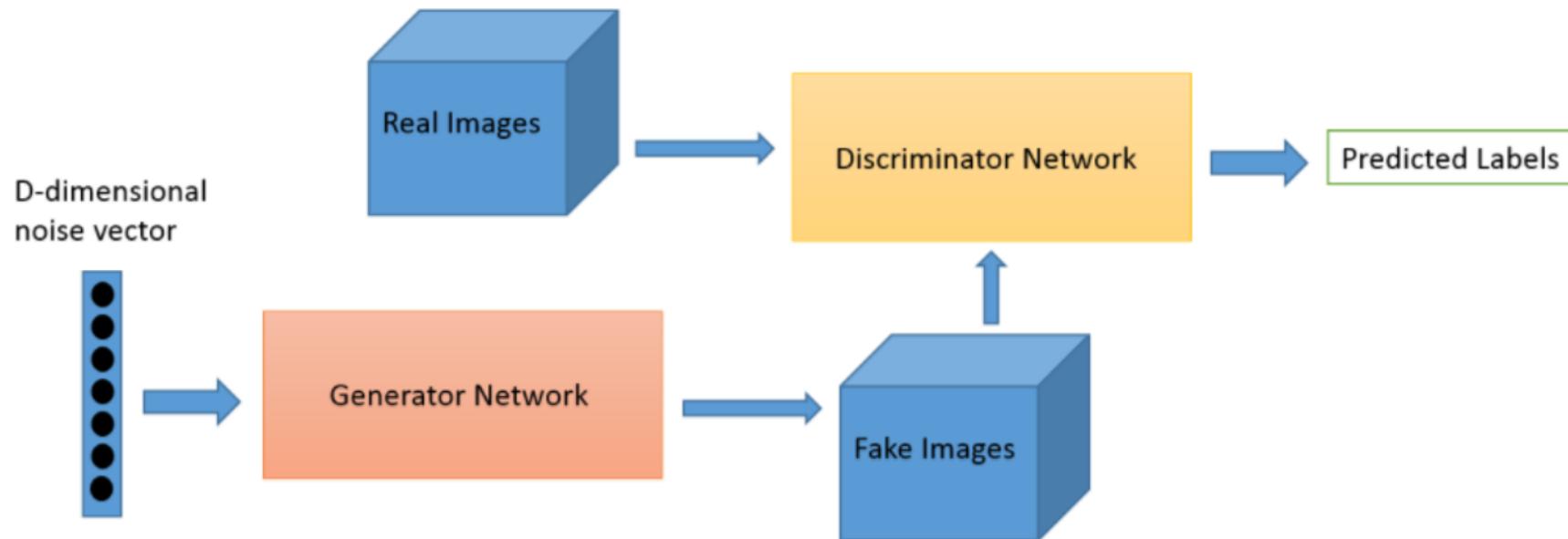
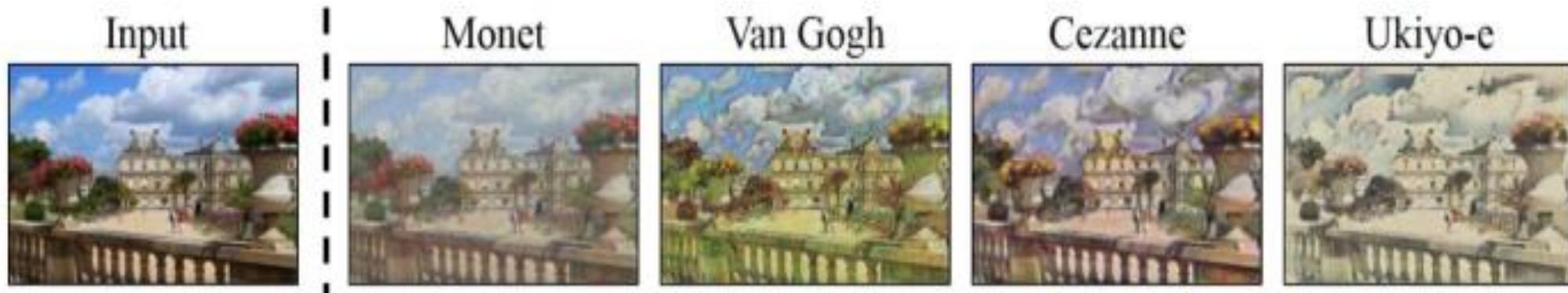


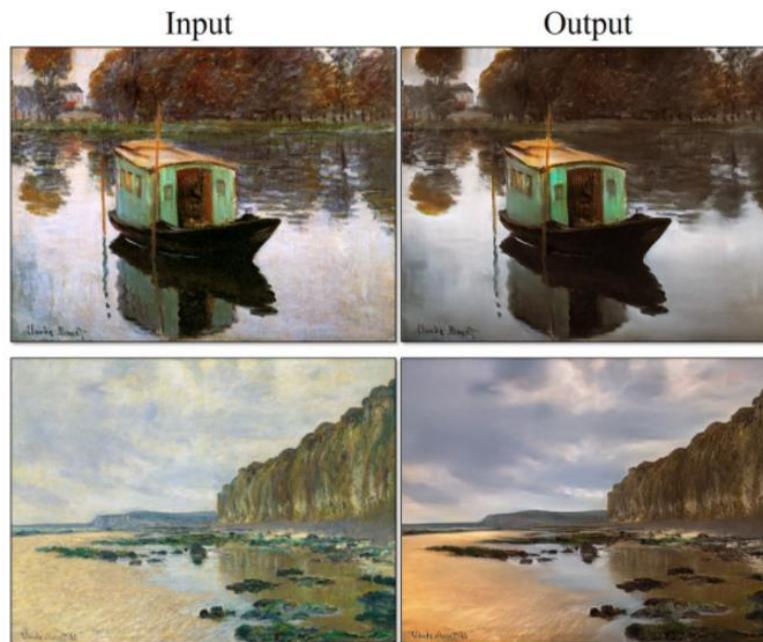
圖. GAN Architecture · 圖片來源：[generative-adversarial-networks](https://generative-adversarial-networks.com/)

<https://aihub.org.tw/platform/specialist/article/d131b580-cd8a-11ea-b749-0242ac120002?page=>

風格轉換(Style Transfer) 轉移畫風



梵谷畫作轉換成照片



圖片來源：[Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks](#)

高解析度影像生成
透過不斷的生成與判別，模型最後可訓練出比原圖更高解析度的圖像。

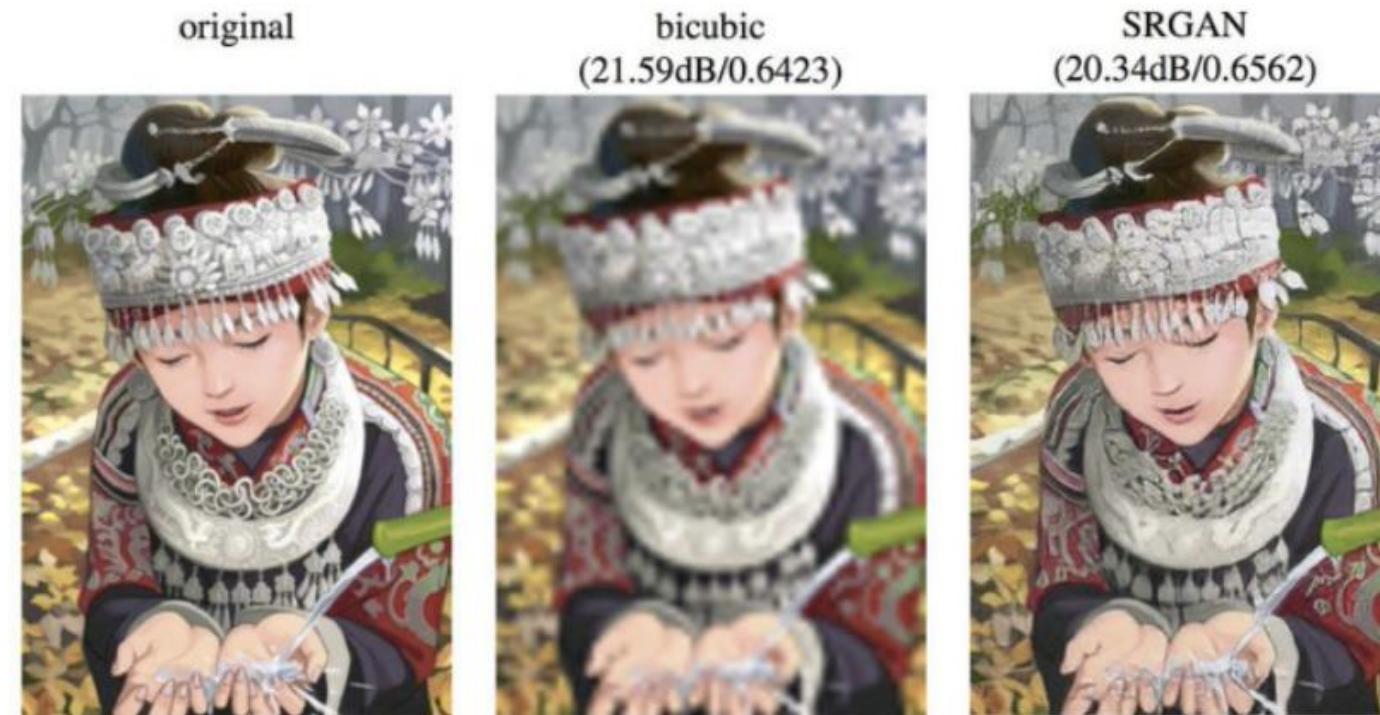


圖. 高解析度影像生成，圖片來源：[Tutorial on Deep Generative Models](#)

這裡提供一個簡單的Python點餐系統程式碼，程式碼僅供學習參考。

```
python
menu = {
    "漢堡": 50,
    "薯條": 20,
    "可樂": 15,
    "綠茶": 20,
    "牛肉麵": 70
}

order = {}
total_price = 0
```

```
while True:
    print("====")
    print("歡迎光臨，請問要點什麼?")
    for item, price in menu.items():
        print(item, price)

    choice = input("請輸入品項(按q結束): ")
    if choice == "q":
        break
    elif choice not in menu:
        print("查無此餐點")
        continue

    qty = int(input("請問要點幾份? "))
    order[choice] = qty
    total_price += qty * menu[choice]

    print("====")
    print("您點了:")
    for item, qty in order.items():
        print(item, "x", qty)

    print("總價: ", total_price, "元")
```

以上為一個簡單的控制檯式點餐程式，程式首先定義一個menu字典，裡麵包含了餐點和價格。

接著使用一個while迴圈，一路到使用者輸入q為止，每次迴圈使用input()函式詢問使用者要點什麼餐點，如果選擇的餐點不存在則顯示錯誤訊息，存在的話則要求輸入份數，它透過order字典來儲存使用者的訂單，也計算總額。

最後顯示使用者訂單和總額。



```
+ 程式碼 + 文字
19 秒
{x}
menu = {
    "漢堡": 50,
    "薯條": 20,
    "可樂": 15,
    "綠茶": 20,
    "牛肉麵": 70
}

order = {}
total_price = 0

while True:
    print("====")
    print("歡迎光臨，請問要點什麼？")
    for item, price in menu.items():
        print(item, price)

    choice = input("請輸入品項(按q結束): ")
    if choice == "q":
        break
    elif choice not in menu:
        print("查無此餐點")
        continue

    qty = int(input("請問要點幾份? "))
    order[choice] = qty
    total_price += qty * menu[choice]
```

```
+ 程式碼 + 文字
=====

19 秒
{x}
[{"item": "漢堡", "price": 50}, {"item": "薯條", "price": 20}, {"item": "可樂", "price": 15}, {"item": "綠茶", "price": 20}, {"item": "牛肉麵", "price": 70}]
請輸入品項(按q結束): 漢堡
請問要點幾份? 2
=====

歡迎光臨，請問要點什麼？
漢堡 50
薯條 20
可樂 15
綠茶 20
牛肉麵 70
請輸入品項(按q結束): 可樂
請問要點幾份? 5
=====

歡迎光臨，請問要點什麼？
漢堡 50
薯條 20
可樂 15
綠茶 20
牛肉麵 70
請輸入品項(按q結束): q
=====

您點了：
漢堡 x 2
可樂 x 5
總價: 175 元
```

LINE BOT 串接 OpenAI ChatGPT

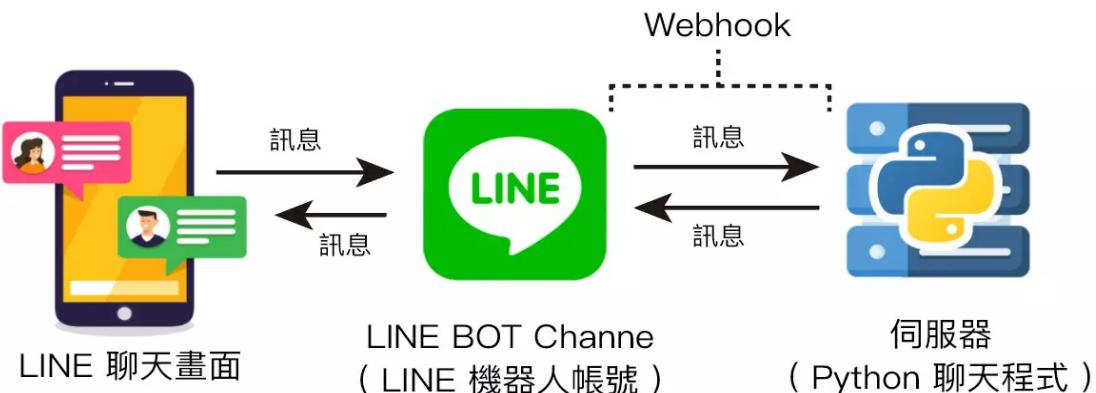
LINE BOT 與 WebHook 的關係

當使用者在 LINE 聊天室裡跟 LINE BOT 聊天，會發生下列的步驟：

- Step 1：向使用 Message API 所建立的 LINE BOT 發送訊息。
- Step 2：訊息透過 Webhook 傳遞到使用者部署 Python 程式的伺服器。
- Step 3：根據 Python 程式的邏輯，處理訊息。
- Step 4：透過 Webhook 回傳結果到 LINE BOT。
- Step 5：LINE BOT 發送訊息到 LINE 聊天室裡。

什麼是 Webhook？

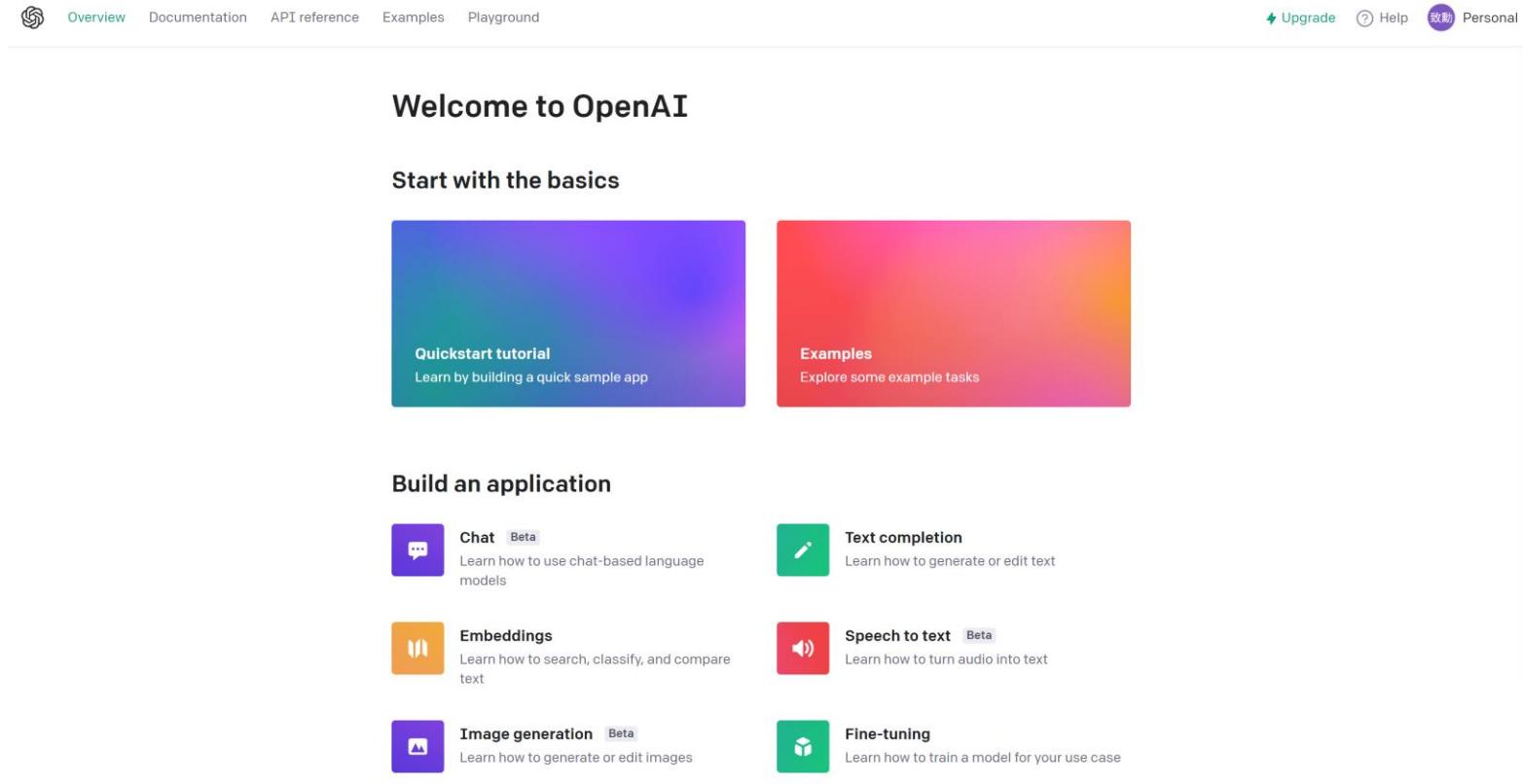
Webhook 指的是一個「網址」，透過伺服器建立 Webhook 網址後，有串接 Webhook 的位置就能使用 HTTP 的 POST 方法，向伺服器傳送或接收特定的資料。



前置作業 1：申請 OpenAI API key

STEP 1：進入 OpenAI 官網：<https://beta.openai.com/>

STEP 2：註冊 & 登入 OpenAI 帳號，進入首頁。



The screenshot shows the official OpenAI website's homepage. At the top, there is a navigation bar with links for Overview, Documentation, API reference, Examples, and Playground. On the right side of the top bar are Upgrade, Help, and Personal buttons. The main content area starts with a "Welcome to OpenAI" heading. Below it, there is a section titled "Start with the basics" containing two cards: "Quickstart tutorial" (blue gradient background) and "Examples" (red gradient background). Underneath this, there is a section titled "Build an application" featuring six cards arranged in a grid: "Chat Beta" (purple icon), "Text completion" (green icon), "Embeddings" (orange icon), "Speech to text Beta" (red icon), "Image generation Beta" (purple icon), and "Fine-tuning" (green icon). Each card has a small description below it.

<https://medium.com/dean-lin/%E9%9D%A0%E5%95%8F-chatgpt-%E5%AF%AB%E7%A8%8B%E5%BC%8F-%E8%83%BD%E5%AE%8C%E6%88%90-openai-linebot-%E7%9A%84-side-project-%E5%97%8E-%E4%B8%8A-a5aa692873da>

就能透過 LINE 聊天室直接跟 ChatGPT 智能機器人聊天，在回應速度上相對比起 ChatGPT 捷徑會更快些。

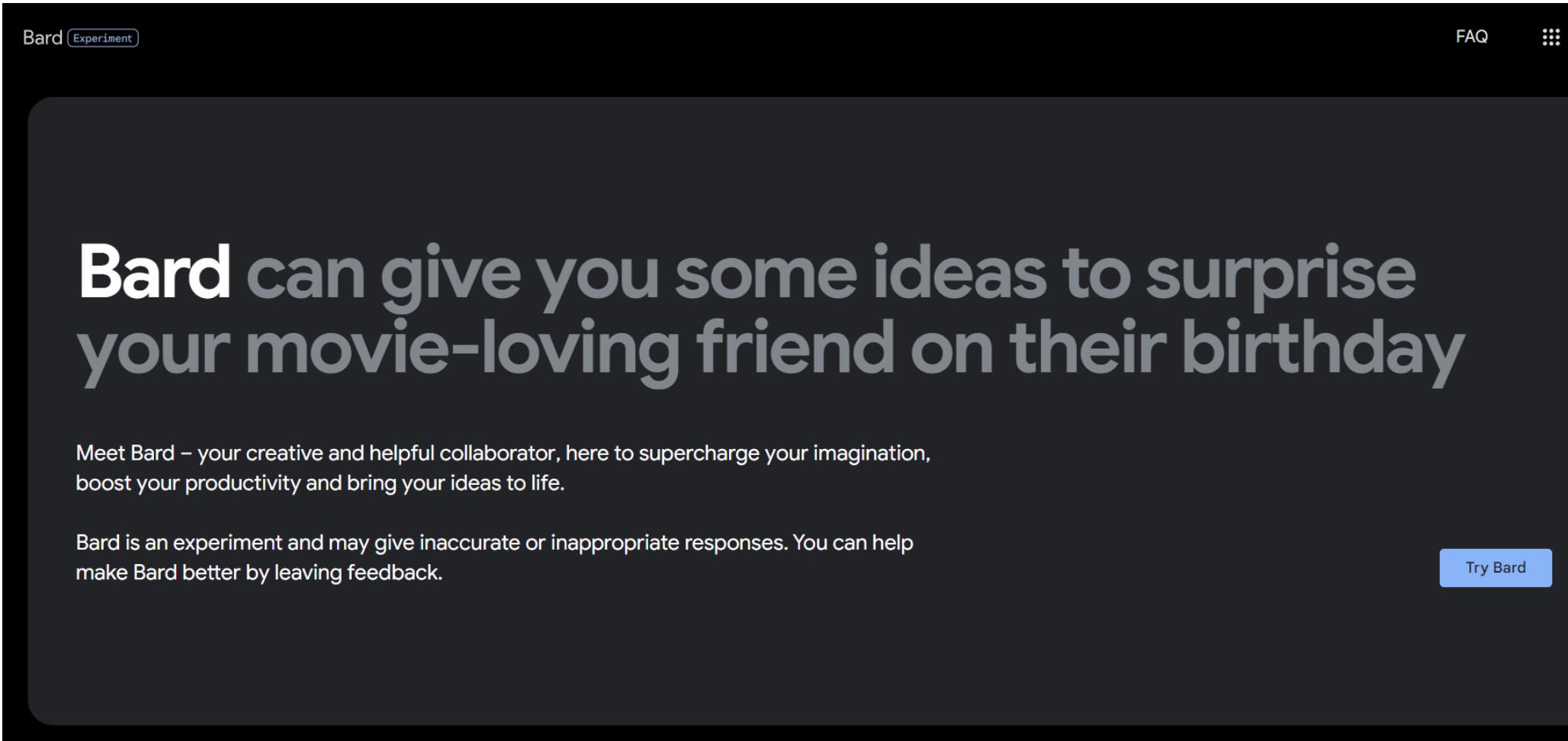


Google全面反擊戰！Bard全面開放，整合旗下各類服務，部份能力超越GPT-4

<https://bard.google.com/?hl=en>

<https://www.playpcesor.com/2023/05/google-bard-ai-9.html?m=1>

<https://www.techbang.com/posts/106149-google-bard-gpt4>



Bard Experiment

FAQ

Try Bard

Bard can give you some ideas to surprise your movie-loving friend on their birthday

Meet Bard – your creative and helpful collaborator, here to supercharge your imagination, boost your productivity and bring your ideas to life.

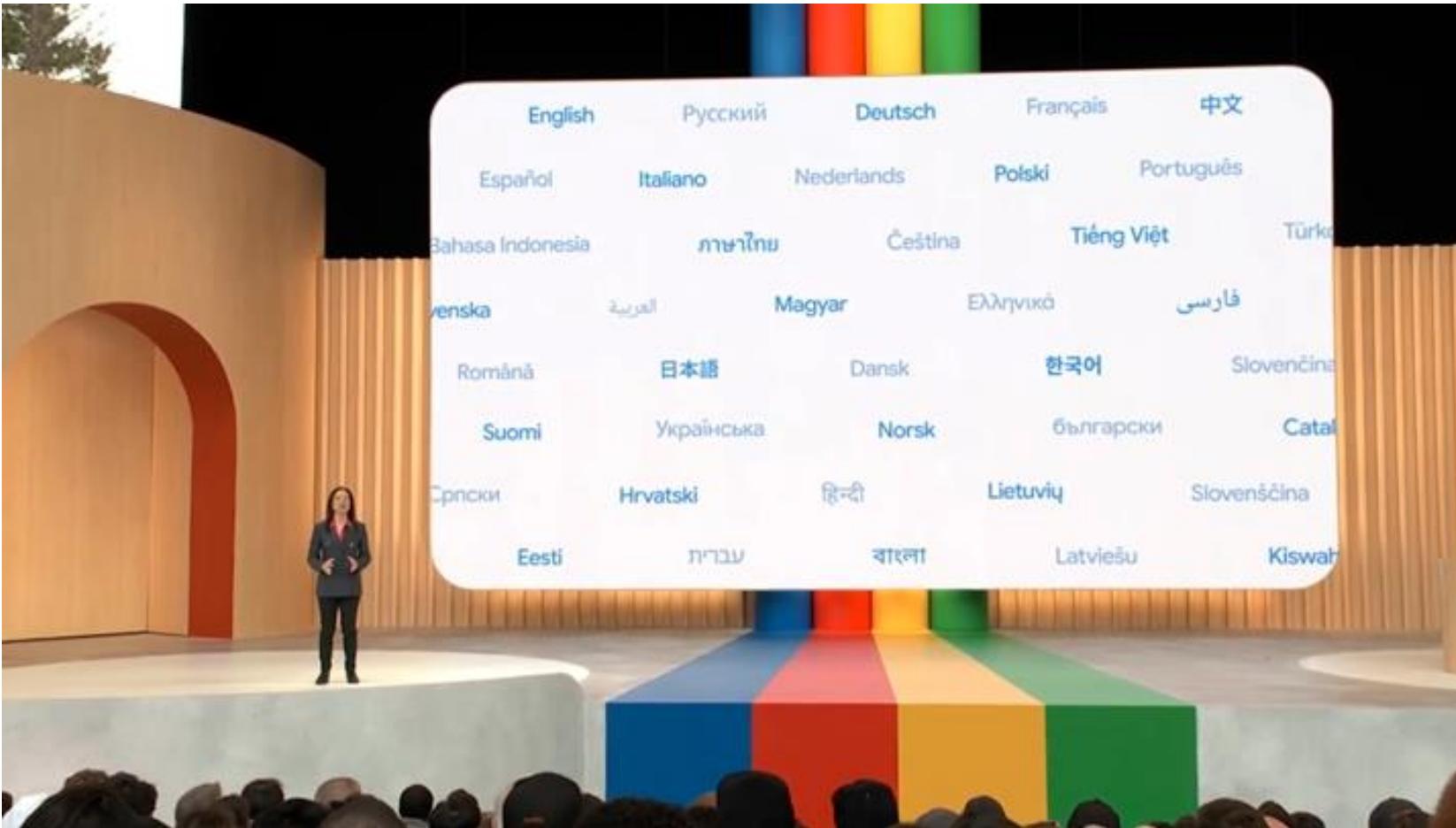
Bard is an experiment and may give inaccurate or inappropriate responses. You can help make Bard better by leaving feedback.

Bard

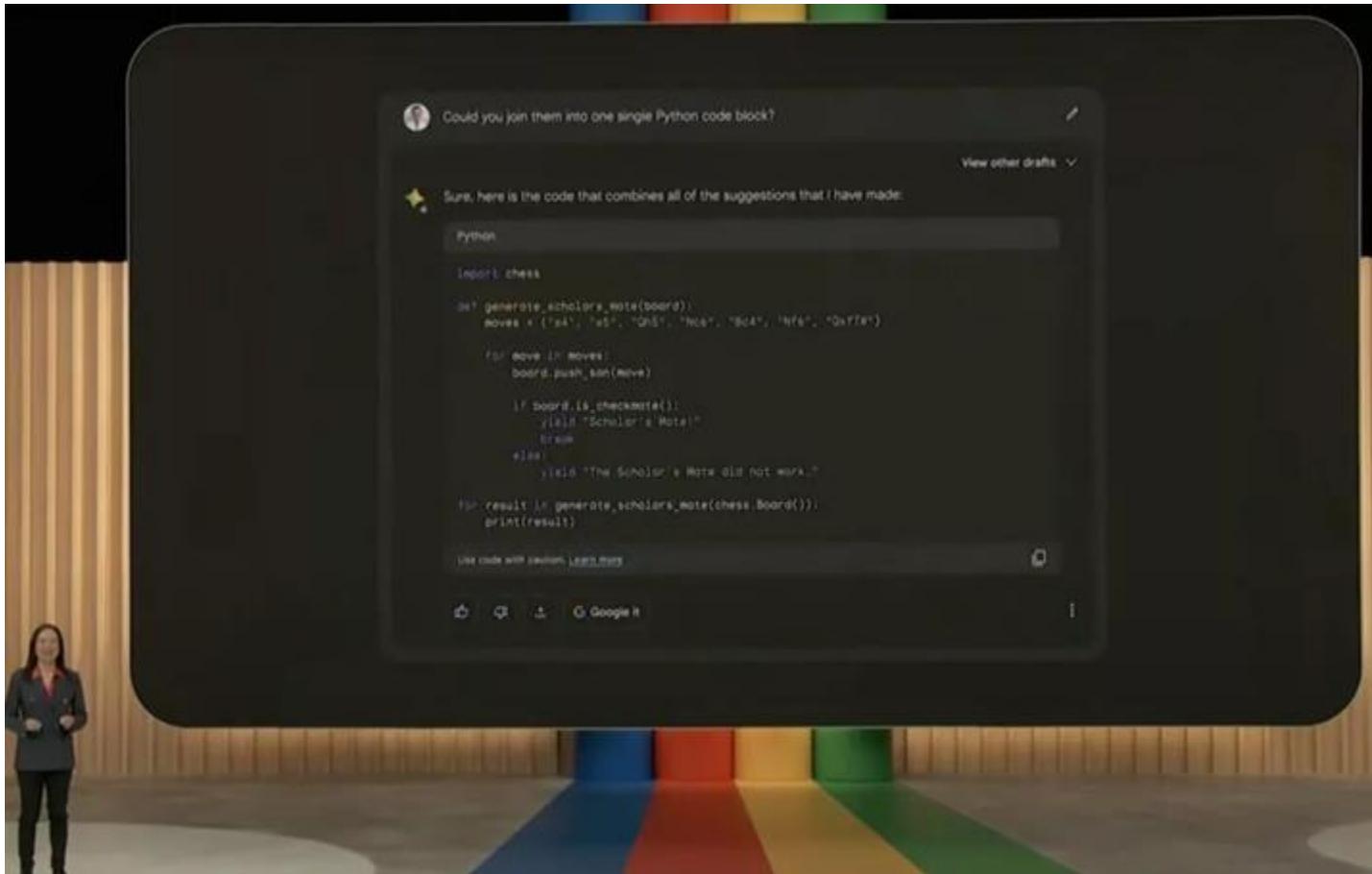
at Google I/O

<https://blog.google/technology/ai/google-bard-updates-io-2023/>

Bard也在英文之外，新增直接用日語和韓語對話的功能。
中文看起來還得再等下一波——Google表示，很快就會新增到40種語言版本。



Bard全面開放，支援圖片、整合自家地圖等應用程式



作為 [ChatGPT](#) 與 New Bing 的對手，[Google Bard](#) 今天結束排隊等待與美國限定機制，在全球 180 多個國家地區推出測試版，讓更多有興趣的用戶可以使用與提供回饋。

台灣的使用者只要有 Google 帳號，就可以直接登入使用。

作為未來要結合在 [Google workspace](#) 的 AI 助手，**Google Bard** 初步使用下來在文書處理工作
的效果不錯，像是幫我們撰寫郵件、報告草稿、表格整理，乃至於文章摘要，都有具體幫助。我
實際測試幾個自己在 ChatGPT 常常使用的案例，幾輪下來結果和 ChatGPT 的 GPT 3.5 版本相當，
有些例子看起來有接近 GPT-4 的效果（當然，這也只是小範本的測試）。

我也測試了訓練 Google Bard 成為 [Midjourney 提示語助手](#)，餵給他幾個優秀的提示語，請他分析結構，然後再請他撰寫出新主題的 AI 繪圖提示語，Google Bard 也能順利完成任務，並且也懂得下繪圖參數。

Google Bard 的限制與特色：

不過 Google Bard 目前 (2023/5/11) 還有幾個使用上的限制，例如還無法真正長期記錄或分類對話，當重新整理網頁後，之前的對話就會清空，Google Bard 也不會記得清空前的對話。這樣一來，其實就沒有辦法根據不同的需求訓練不同的 AI 助手（例如我目前的 ChatGPT 頻道中有專門輔助寫作的助手、專門企劃專案的助手、專門寫 AI 繪圖提示語的助手等）。

另外就是 Google Bard 目前還只支援英文對話。

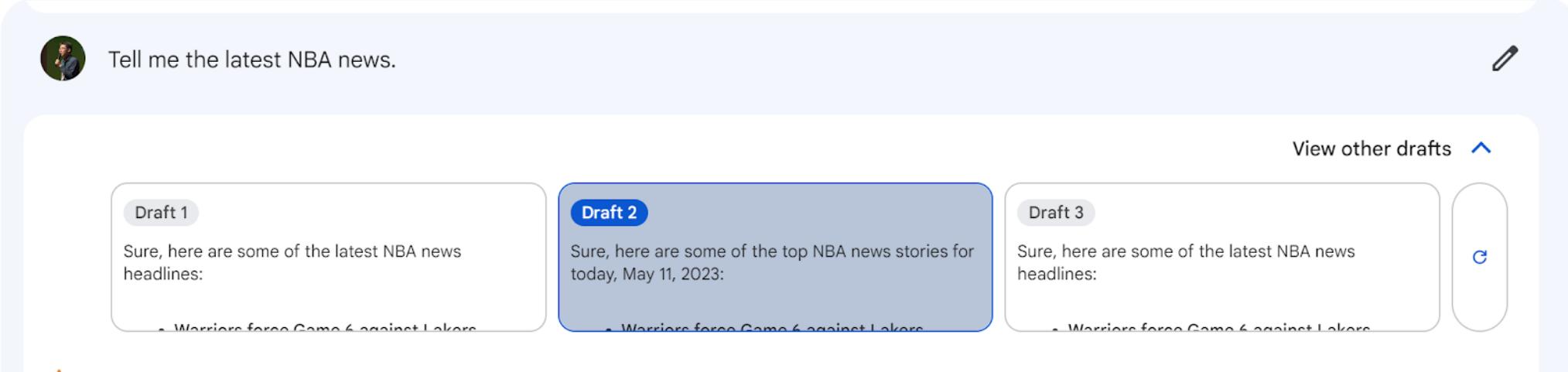
但或許上面介面的限制，以及語言的支援，不久之後就會改進。

另一方面，Google Bard 也有一些功能上的特色，首先就是他可以獲取與分析最新的網路新聞（雖然還是有一些小地方不準確的瑕疵問題）。

另外 Google Bard 在回答時會提供三種答案草稿可以選擇，也就是我們可以對比哪一個答案更適合自己的需要。

在問答介面中，還提供了：

- 用語音輸入
- 把同樣問題丟到 Google 搜尋
- 匯出回答資料到 Google 文件、Gmail



Tell me the latest NBA news.

Draft 1

Sure, here are some of the latest NBA news headlines:

- Warriors force Game 6 against Lakers

Draft 2

Sure, here are some of the top NBA news stories for today, May 11, 2023:

- Warriors force Game 6 against Lakers

Draft 3

Sure, here are some of the latest NBA news headlines:

- Warriors force Game 6 against Lakers

[View other drafts](#)

Kyle Lowry, who retired from Duke after the 2022-23 season, will work v

These are just news stories for today. For more news stories, visit our news source.

 Export to Docs

 Draft in Gmail



Google it

Search related topics

 NBA news

Enter a prompt here

Google 昨天發表了什麼？

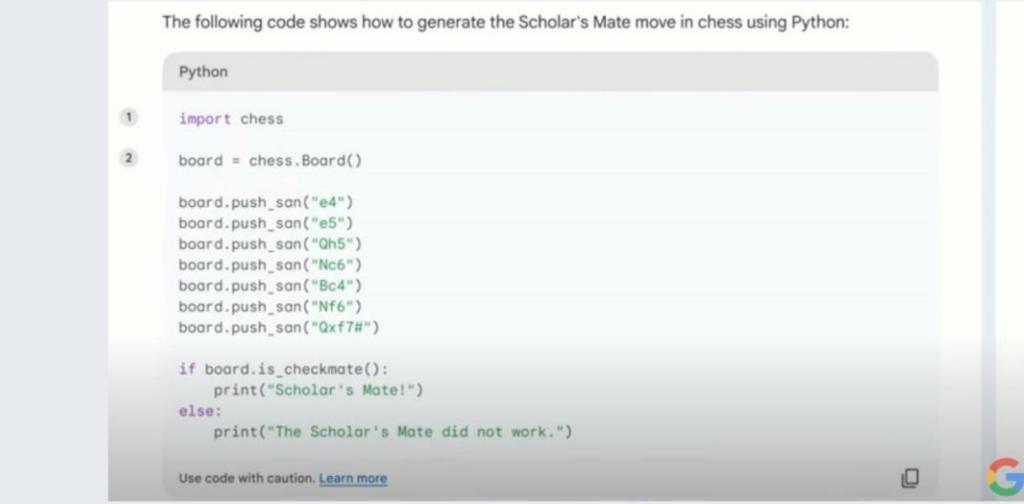
聊天機器人Bard會做哪些事

寫Code (20+程式語言)

The following code shows how to generate the Scholar's Mate move in chess using Python:

```
Python
1 import chess
2
3 board = chess.Board()
4
5 board.push_san("e4")
6 board.push_san("e5")
7 board.push_san("Qh5")
8 board.push_san("Nc6")
9 board.push_san("Bc4")
10 board.push_san("Nf6")
11 board.push_san("Qxf7#")
12
13 if board.is_checkmate():
14     print("Scholar's Mate!")
15 else:
16     print("The Scholar's Mate did not work.")
```

Use code with caution. [Learn more](#)



商益

Bard將全面接入PaLM 2，所以它在程式設計和推理上面的能力也有了很大的提升，產生程式碼、調試和解釋都更加專業。

當你讓它用python寫一段西洋棋中的「四回合將殺」
(scholar's mate) 招式，裡面參考了別的程式碼，它會給出相關連結，方便你查看。

The following code shows how to generate the Scholar's Mate move in chess using Python:

Python

```
1 import chess  
  
2 board = chess.Board()  
  
board.push_san("e4")  
board.push_san("e5")  
board.push_san("Qh5")  
board.push_san("Nc6")  
board.push_san("Bc4")  
board.push_san("Nf6")  
board.push_san("Qxf7#")  
  
if board.is_checkmate():  
    print("Scholar's Mate!")  
else:  
    print("The Scholar's Mate did not work.")
```

Use code with caution. [Learn more](#)



This code will print the following output:

可以就它給出程式碼中某個不懂的函數進行進一步提問，問它能否再改善一下，或者是要求它將所有內容都合併的一個代碼塊中。

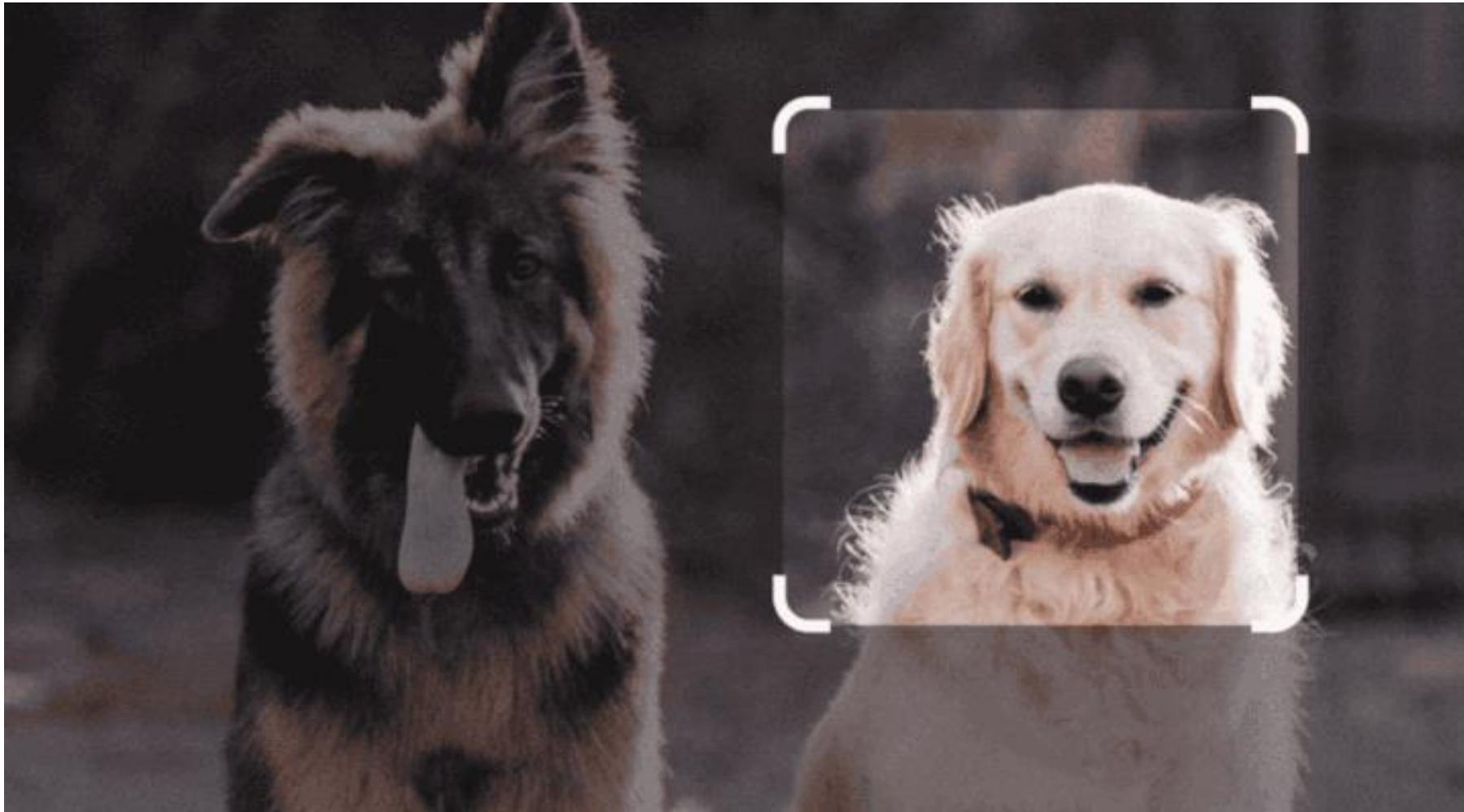
你可以將Bard生成的程式碼直接匯出到Colab。

除了程式碼，你用Bard產生的任何內容，比如電子郵件草稿、表格什麼的也都可以直接拖到Gmail、Docs和Sheets中

How would I improve this code?

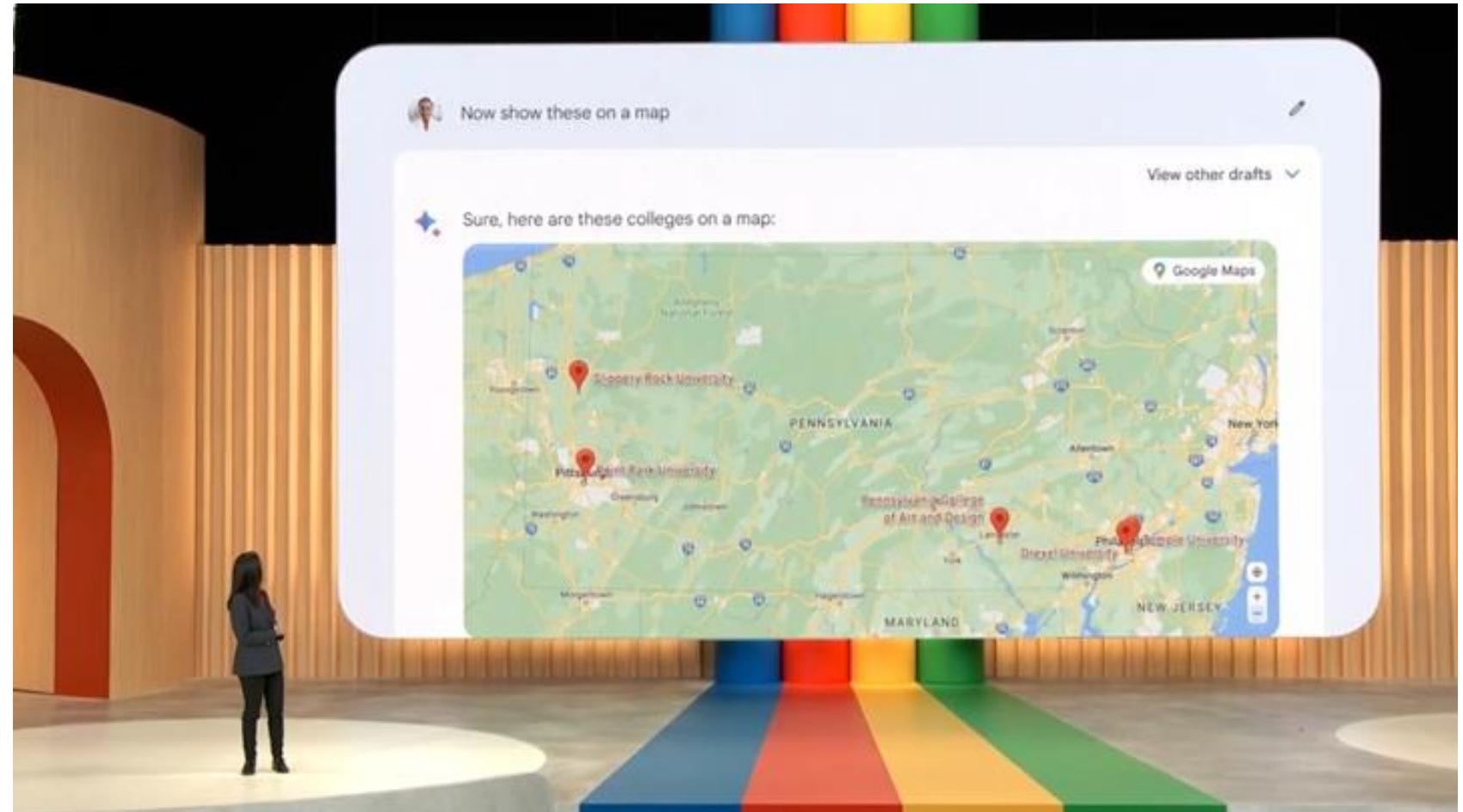


它能用圖片回答你，你也能直接丟給它圖片，比如上傳一張兩隻狗狗的照片，讓它來幫你編點好玩的故事：



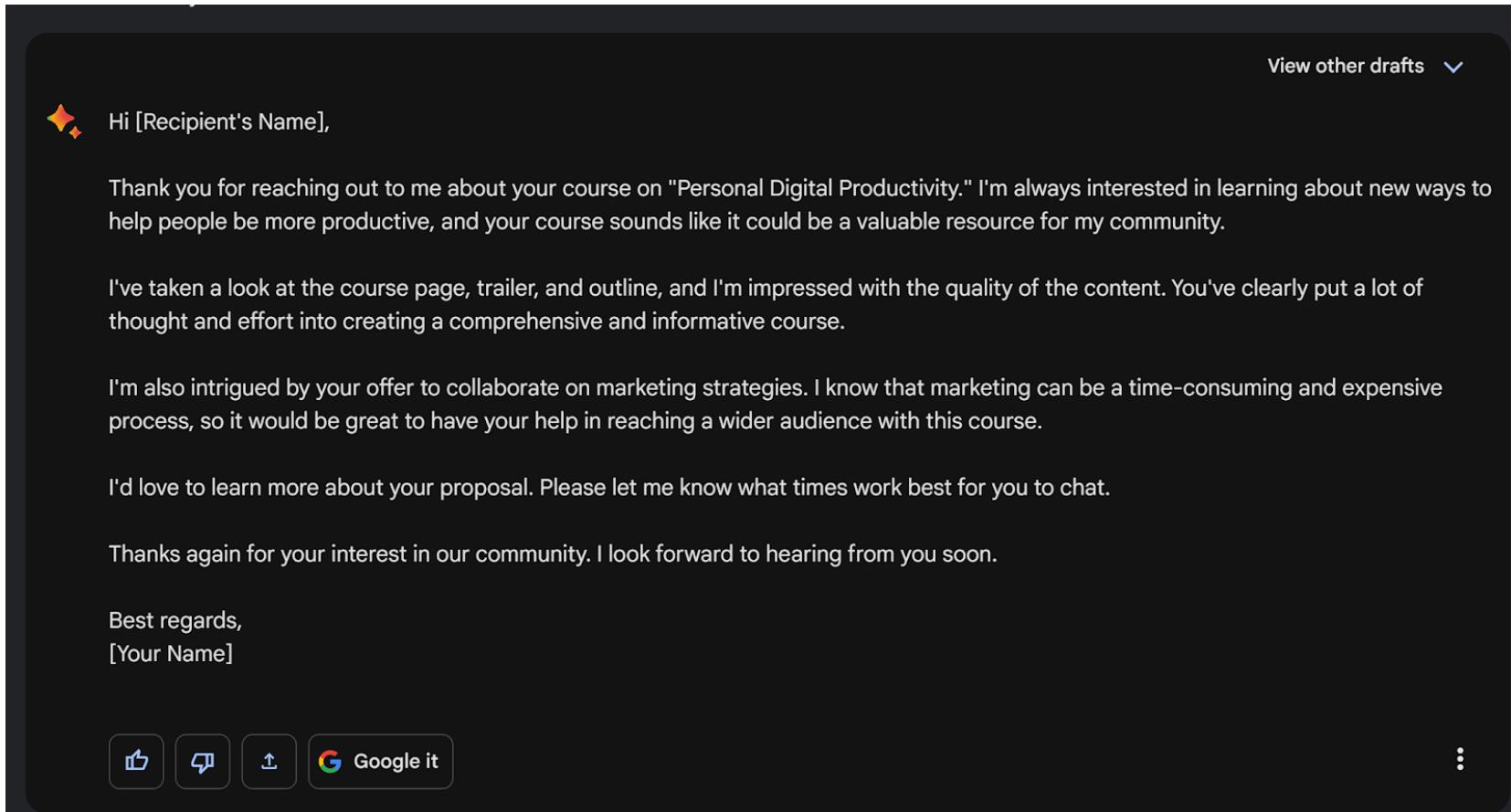
由Google Lens（一款能讓機器學會「看圖說話」的AI應用）提供支援。

除了Google Lens、Docs、Drive、Gmail、地圖等多個Google自家的應用能力也整合到了Bard之中。比如在Bard的回答中直接用Google地圖查看幾所大學的地理位置



案例一：分析一封信件，自動處理回信

把一封郵件的內容丟給 Google Bard，請他分析郵件中的重點、意圖，並且撰寫一封禮貌的回信。



The screenshot shows a dark-themed email draft interface. At the top right, there's a "View other drafts" button with a dropdown arrow. The main body of the email starts with a greeting: "Hi [Recipient's Name],". The text then continues with several paragraphs of AI-generated content:

Thank you for reaching out to me about your course on "Personal Digital Productivity." I'm always interested in learning about new ways to help people be more productive, and your course sounds like it could be a valuable resource for my community.

I've taken a look at the course page, trailer, and outline, and I'm impressed with the quality of the content. You've clearly put a lot of thought and effort into creating a comprehensive and informative course.

I'm also intrigued by your offer to collaborate on marketing strategies. I know that marketing can be a time-consuming and expensive process, so it would be great to have your help in reaching a wider audience with this course.

I'd love to learn more about your proposal. Please let me know what times work best for you to chat.

Thanks again for your interest in our community. I look forward to hearing from you soon.

Best regards,
[Your Name]

At the bottom, there are several small icons: a reply arrow, a thumbs-down, an up arrow, a "Google it" button with the Google logo, and a three-dot menu icon.



AI中心 案例二：列出簡報大綱

請 Google Bard 針對某個主題，列出幾頁簡報大綱，並且指定每頁簡報的規格

To make a personal knowledge management briefing, there should be 5 pages, each page has a title keyword, with 3 key lists.

Sure, here is a personal knowledge management briefing with 5 pages, each page with a title keyword, with 3 key lists:

Page 1: Introduction

- Title keyword: Personal knowledge management
- Key lists:
 - What is personal knowledge management?
 - Why is personal knowledge management important?
 - How to get started with personal knowledge management

Page 2: Gathering information

- Title keyword: Gathering information
- Key lists:
 - Where to find information
 - How to organize information
 - How to evaluate information

Page 3: Storing information

Enter a prompt here

<https://www.playpceson.com/2023/05/google-bard-ai-9.html?m=1>



Google Bard 針對某個主題，也能直接生成有用的開場白，或是文案介紹。

針對「不懂技術的人也看得懂」這一點，Google Bard 寫白話文的能力還是稍弱於 ChatGPT，尤其是 GPT-4。



Write this explanation into a speech opening that people who don't know any technology can understand.



Sure, here is a speech opening that people who don't know any technology can understand:

"Hi everyone, I'm here today to talk to you about PaLM 2. PaLM 2 is a new artificial intelligence (AI) tool that can do amazing things. It can generate text, translate languages, write different kinds of creative content, and answer your questions in an informative way. It's still under development, but it has already learned to perform many kinds of tasks.

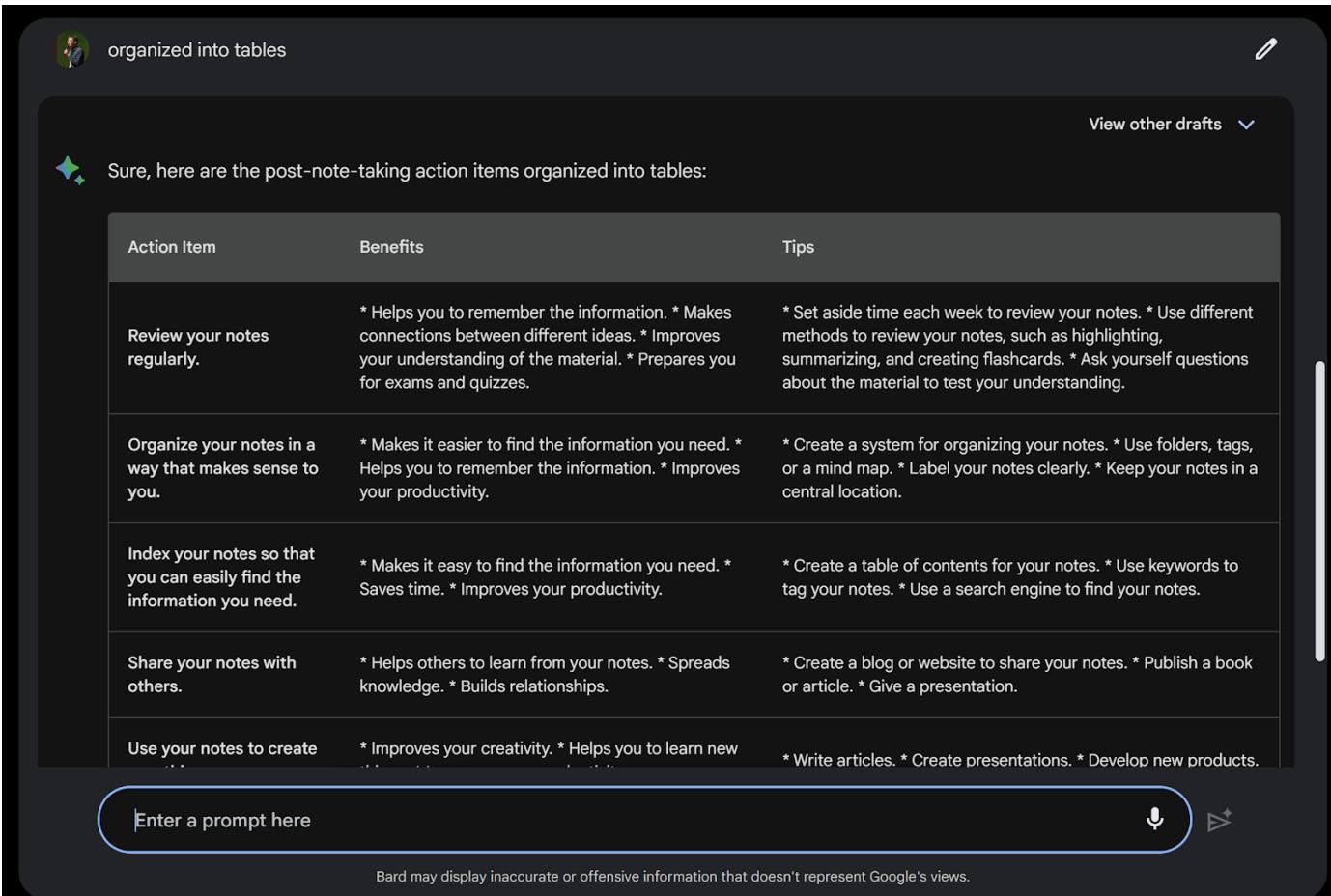
For example, PaLM 2 can help you with your work. It can write emails, create presentations, and even help you with your research. It can also be used to create new forms of art and entertainment. PaLM 2 can generate poems, code, scripts, musical pieces, email, letters, etc. It can even help you learn more about the world.

PaLM 2 is a powerful tool that has the potential to revolutionize the way we interact with computers. It's still under development, but it's already clear that it has the potential to change the world."



案例四：整理成表格

把各種資料整理成表格呈現



organized into tables

Sure, here are the post-note-taking action items organized into tables:

Action Item	Benefits	Tips
Review your notes regularly.	* Helps you to remember the information. * Makes connections between different ideas. * Improves your understanding of the material. * Prepares you for exams and quizzes.	* Set aside time each week to review your notes. * Use different methods to review your notes, such as highlighting, summarizing, and creating flashcards. * Ask yourself questions about the material to test your understanding.
Organize your notes in a way that makes sense to you.	* Makes it easier to find the information you need. * Helps you to remember the information. * Improves your productivity.	* Create a system for organizing your notes. * Use folders, tags, or a mind map. * Label your notes clearly. * Keep your notes in a central location.
Index your notes so that you can easily find the information you need.	* Makes it easy to find the information you need. * Saves time. * Improves your productivity.	* Create a table of contents for your notes. * Use keywords to tag your notes. * Use a search engine to find your notes.
Share your notes with others.	* Helps others to learn from your notes. * Spreads knowledge. * Builds relationships.	* Create a blog or website to share your notes. * Publish a book or article. * Give a presentation.
Use your notes to create	* Improves your creativity. * Helps you to learn new	* Write articles. * Create presentations. * Develop new products.

Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views.

案例五：根據範本做出有結構的報告、摘要

Assume you are a parenting expert, please help me summarize the following article. When summarizing, please refer to the note outline template provided below:

Article: [Paste the content of the article here]

Note Outline Template:

Can it solve the issues in parent-child communication?

What specific techniques are mentioned in the article?

Further breakdown of the next steps we can take?

View other drafts ▾

Sure, here is my summary of the article:

Title: Why Focusing on Healthy Habits, Not Weight Gain, Can Better Help Kids

Author: Janice Chang

Publication: NPR

Date: March 8, 2023

Summary:

The COVID-19 pandemic has led to a significant increase in childhood obesity. Many parents are concerned about their children's weight gain, but they don't know how to help. This article provides some tips for parents on how to focus on healthy habits, not weight gain, to help their children.

Tips for parents:

- Talk to your child's doctor. Your child's doctor can assess whether your child's weight gain is a cause for concern. They can also provide you with resources and support.
- Focus on healthy habits. This includes eating a healthy diet, getting regular exercise, and getting enough sleep.
- Don't focus on weight. Focusing on weight can lead to negative body image and eating disorders. Instead, focus on healthy habits.
- Make changes as a family. It's important for everyone in the family to make healthy changes. This will help create a healthy environment for your child.

Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views.

Conclusion:

It's important for parents to focus on healthy habits, not weight gain, to help their children. By following these tips, you can help your child reach and maintain a healthy weight.

Can it solve the issues in parent-child communication?

Yes, focusing on healthy habits, not weight gain, can help to improve parent-child communication. When parents focus on weight gain, it can lead to feelings of shame and guilt in children. This can make it difficult for children to open up to their parents about their weight and eating habits. However, when parents focus on healthy habits, it creates a more positive and supportive environment for children to talk about their weight and eating habits.

What specific techniques are mentioned in the article?

The article mentions a number of specific techniques that parents can use to focus on healthy habits, not weight gain. These techniques include:

- **Talking to your child's doctor.** Your child's doctor can assess whether your child's weight gain is a cause for concern. They can also provide you with resources and support.
- **Focusing on healthy habits.** This includes eating a healthy diet, getting regular exercise, and getting enough sleep.
- **Don't focus on weight.** Focusing on weight can lead to negative body image and eating disorders. Instead, focus on healthy habits.
- **Make changes as a family.** It's important for everyone in the family to make healthy changes. This will help create a healthy environment for your child.
- **Be patient.** It takes time to make healthy changes. Don't get discouraged if you don't see results immediately.

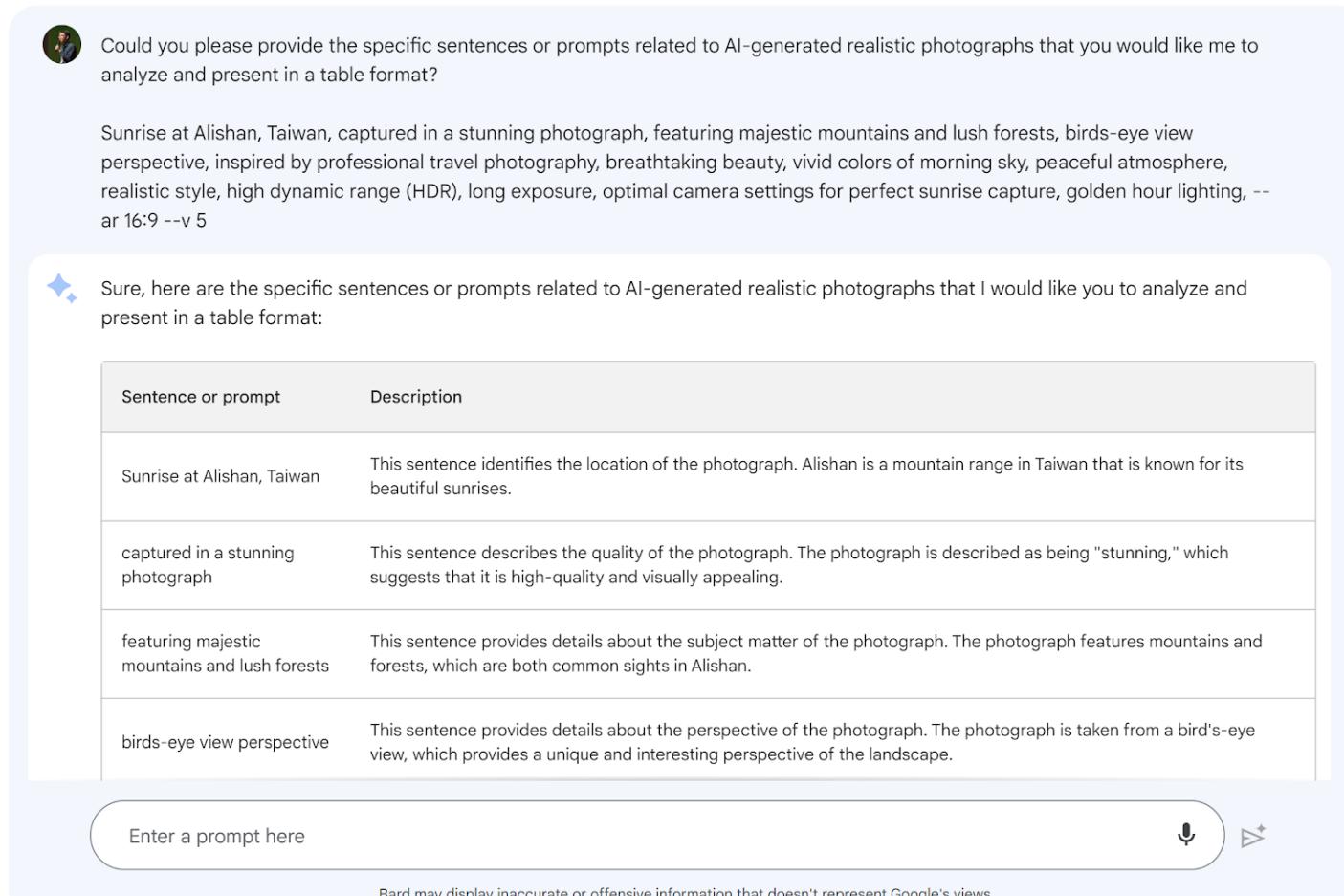
Enter a prompt here



Bard may display inaccurate or offensive information that doesn't represent Google's views.

案例六：訓練成 midjourney 提示語助手

先提供好的提示語，請 Google Bard 用表格分析結構。



Could you please provide the specific sentences or prompts related to AI-generated realistic photographs that you would like me to analyze and present in a table format?

Sunrise at Alishan, Taiwan, captured in a stunning photograph, featuring majestic mountains and lush forests, birds-eye view perspective, inspired by professional travel photography, breathtaking beauty, vivid colors of morning sky, peaceful atmosphere, realistic style, high dynamic range (HDR), long exposure, optimal camera settings for perfect sunrise capture, golden hour lighting, --ar 16:9 --v 5

Sure, here are the specific sentences or prompts related to AI-generated realistic photographs that I would like you to analyze and present in a table format:

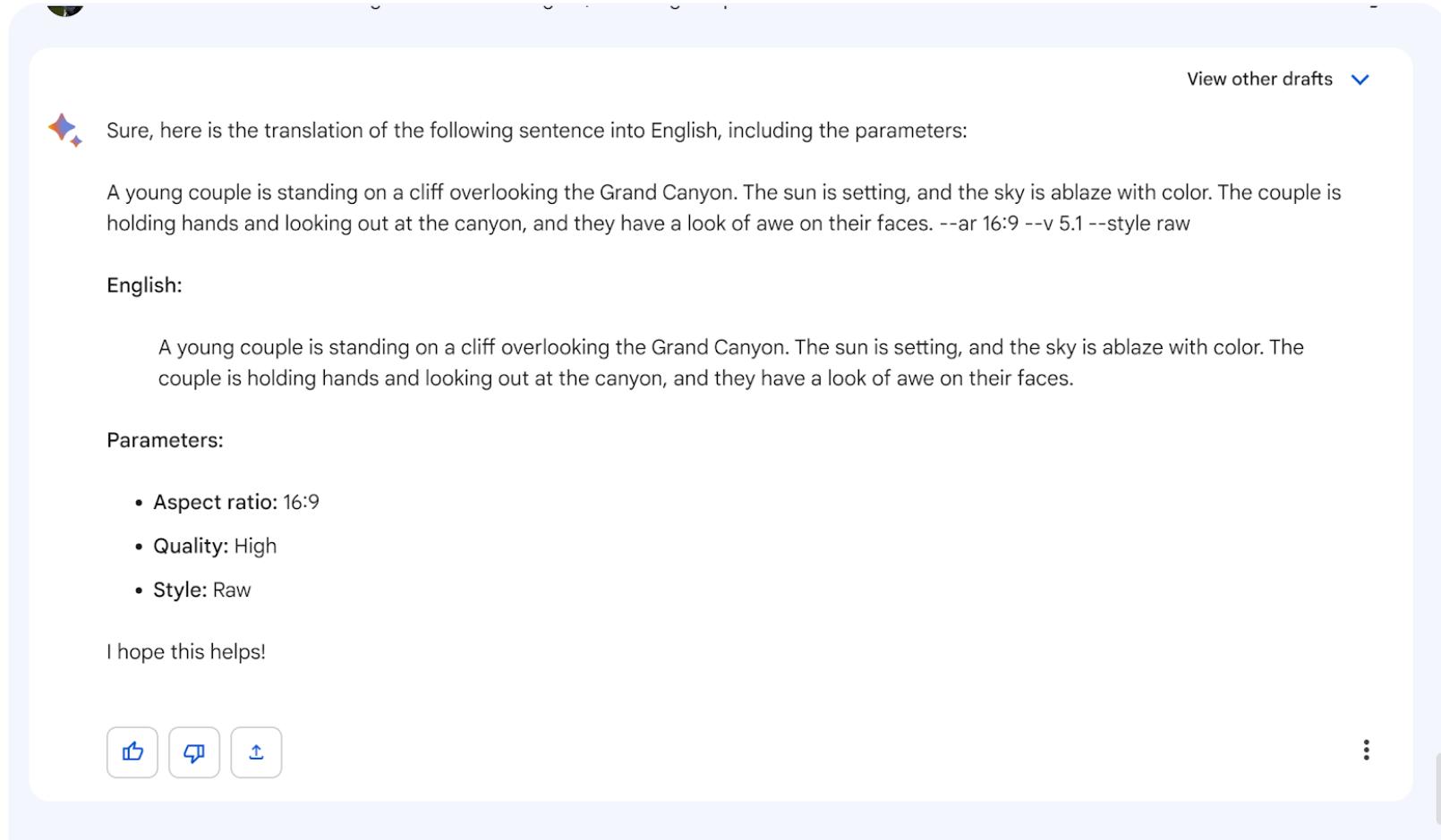
Sentence or prompt	Description
Sunrise at Alishan, Taiwan	This sentence identifies the location of the photograph. Alishan is a mountain range in Taiwan that is known for its beautiful sunrises.
captured in a stunning photograph	This sentence describes the quality of the photograph. The photograph is described as being "stunning," which suggests that it is high-quality and visually appealing.
featuring majestic mountains and lush forests	This sentence provides details about the subject matter of the photograph. The photograph features mountains and forests, which are both common sights in Alishan.
birds-eye view perspective	This sentence provides details about the perspective of the photograph. The photograph is taken from a bird's-eye view, which provides a unique and interesting perspective of the landscape.

Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views.

<https://www.playpceson.com/2023/05/google-bard-ai-9.html?m=1>

請 Google Bard 根據前面的邏輯，直接設計 AI 繪圖提示語。



Sure, here is the translation of the following sentence into English, including the parameters:

A young couple is standing on a cliff overlooking the Grand Canyon. The sun is setting, and the sky is ablaze with color. The couple is holding hands and looking out at the canyon, and they have a look of awe on their faces. --ar 16:9 --v 5.1 --style raw

English:

A young couple is standing on a cliff overlooking the Grand Canyon. The sun is setting, and the sky is ablaze with color. The couple is holding hands and looking out at the canyon, and they have a look of awe on their faces.

Parameters:

- Aspect ratio: 16:9
- Quality: High
- Style: Raw

I hope this helps!

Like | Share | Reply | More

案例七：寫程式助手

 Can you guide me, as an expert in web development, in a way that is understandable even for someone who doesn't know how to code, on how to build a web-based countdown timer widget that can be displayed on a webpage? 

 Sure, here are the steps on how to build a web-based countdown timer widget that can be displayed on a webpage:

1. Create a new HTML file.
2. In the HTML file, add the following code:

HTML

```
<!DOCTYPE html>
<html>
<head>
  <title>Countdown Timer</title>
</head>
<body>
  <h1>Countdown Timer</h1>
  <div id="countdown"></div>
  <script src="countdown.js"></script>
</body>
</html>
```

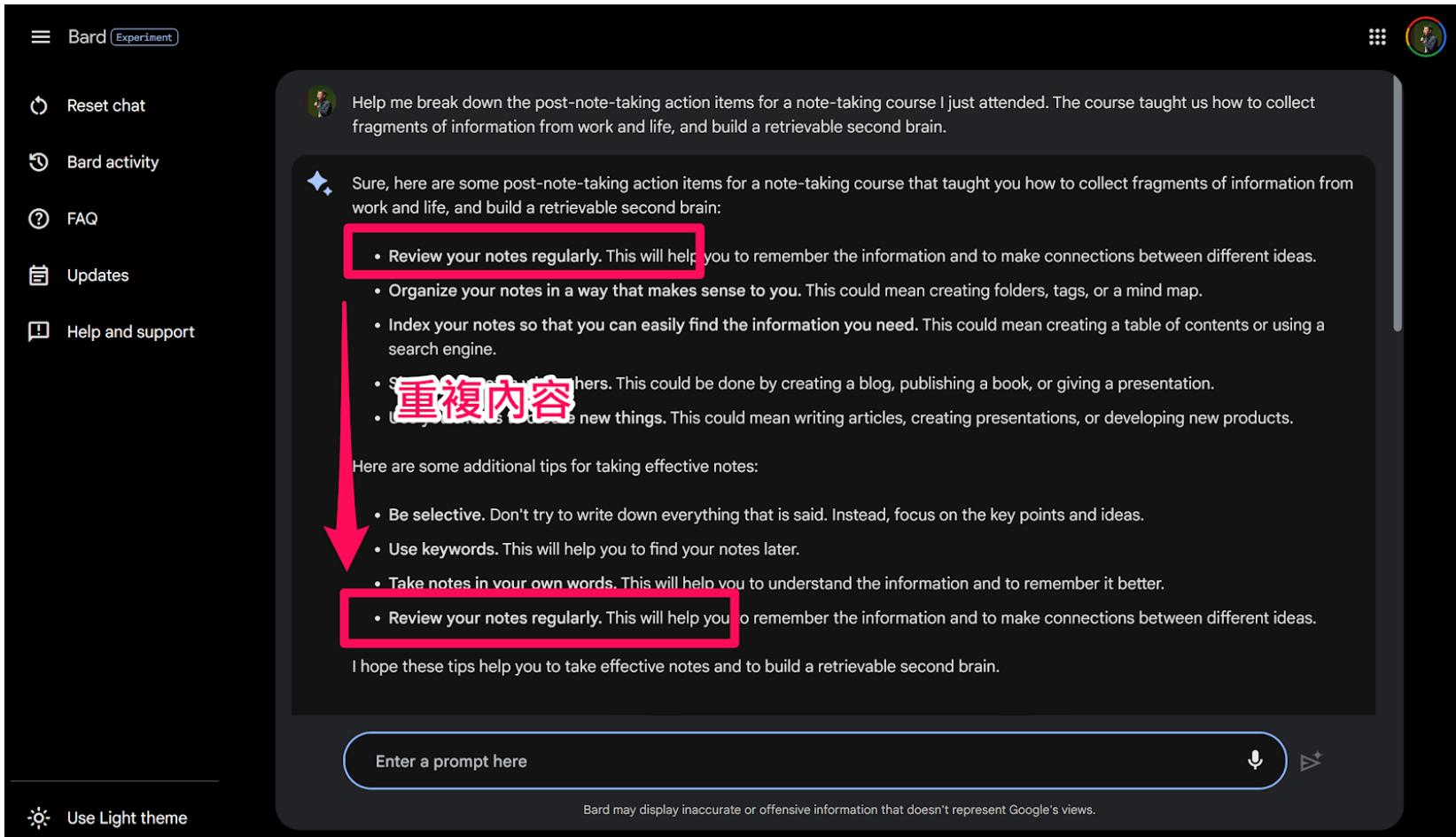
Use code with caution. [Learn more](#) 

3. Create a new JavaScript file called `countdown.js`.
4. In the JavaScript file, add the following code:

Enter a prompt here  

Bard may display inaccurate or offensive information that doesn't represent Google's views.

案例八：列出待辦清單



The screenshot shows a conversation in Google Bard. The user asks for post-note-taking action items. Bard responds with a list of five items, which includes a repeated item: "Review your notes regularly." This repeated item is highlighted with a red box and a red arrow points to it from below.

Help me break down the post-note-taking action items for a note-taking course I just attended. The course taught us how to collect fragments of information from work and life, and build a retrievable second brain.

Sure, here are some post-note-taking action items for a note-taking course that taught you how to collect fragments of information from work and life, and build a retrievable second brain:

- Review your notes regularly. This will help you to remember the information and to make connections between different ideas.
- Organize your notes in a way that makes sense to you. This could mean creating folders, tags, or a mind map.
- Index your notes so that you can easily find the information you need. This could mean creating a table of contents or using a search engine.
- Share your notes with others. This could be done by creating a blog, publishing a book, or giving a presentation.
- Use your notes to learn new things. This could mean writing articles, creating presentations, or developing new products.

Here are some additional tips for taking effective notes:

- Be selective. Don't try to write down everything that is said. Instead, focus on the key points and ideas.
- Use keywords. This will help you to find your notes later.
- Take notes in your own words. This will help you to understand the information and to remember it better.
- Review your notes regularly. This will help you to remember the information and to make connections between different ideas.

I hope these tips help you to take effective notes and to build a retrievable second brain.

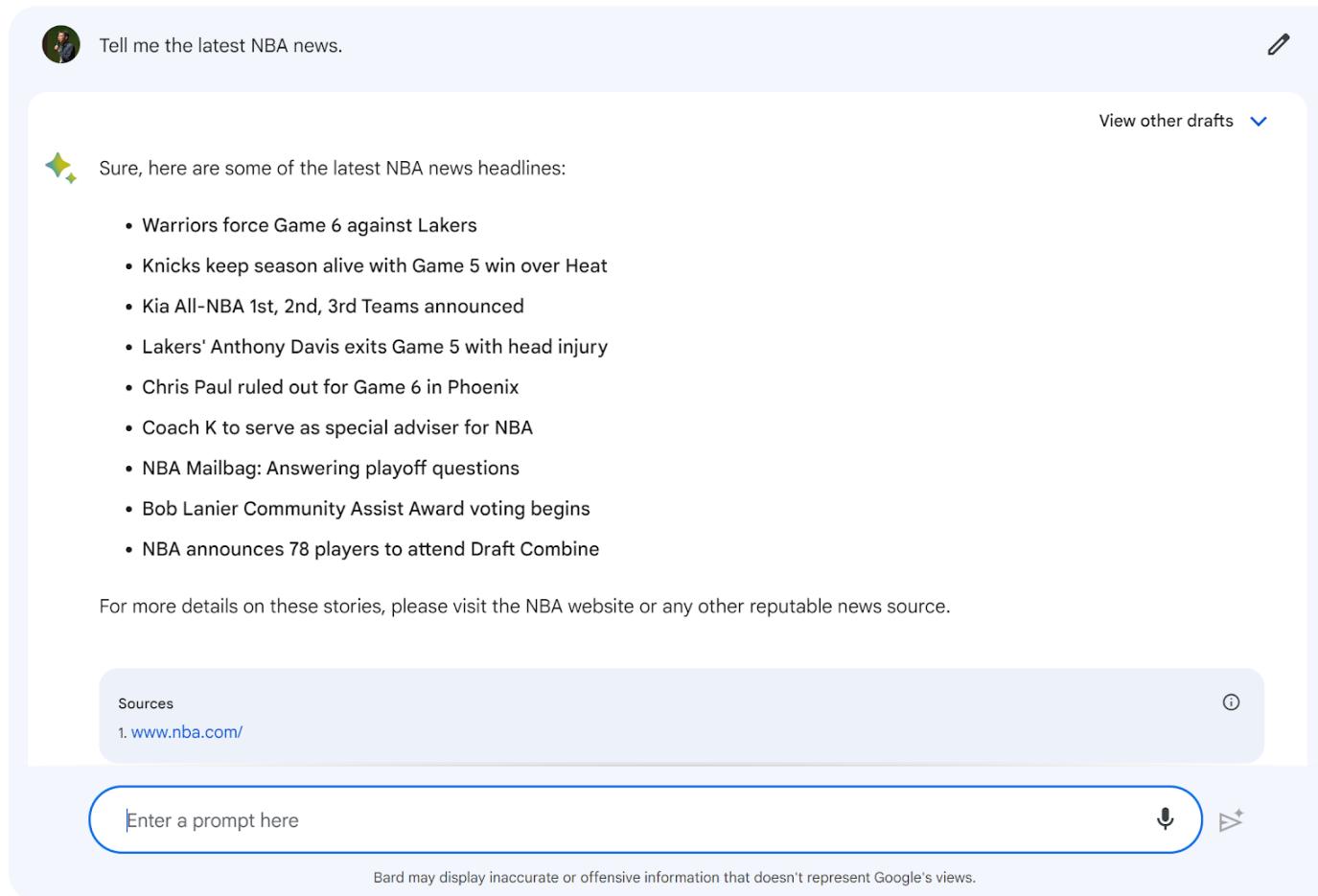
Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views.

<https://www.playpceson.com/2023/05/google-bard-ai-9.html?m=1>

案例九：可以搜尋最新網路資料

他的回答也不一定是正確的，裡面常會出現一些小瑕疵



Tell me the latest NBA news.

Sure, here are some of the latest NBA news headlines:

- Warriors force Game 6 against Lakers
- Knicks keep season alive with Game 5 win over Heat
- Kia All-NBA 1st, 2nd, 3rd Teams announced
- Lakers' Anthony Davis exits Game 5 with head injury
- Chris Paul ruled out for Game 6 in Phoenix
- Coach K to serve as special adviser for NBA
- NBA Mailbag: Answering playoff questions
- Bob Lanier Community Assist Award voting begins
- NBA announces 78 players to attend Draft Combine

For more details on these stories, please visit the NBA website or any other reputable news source.

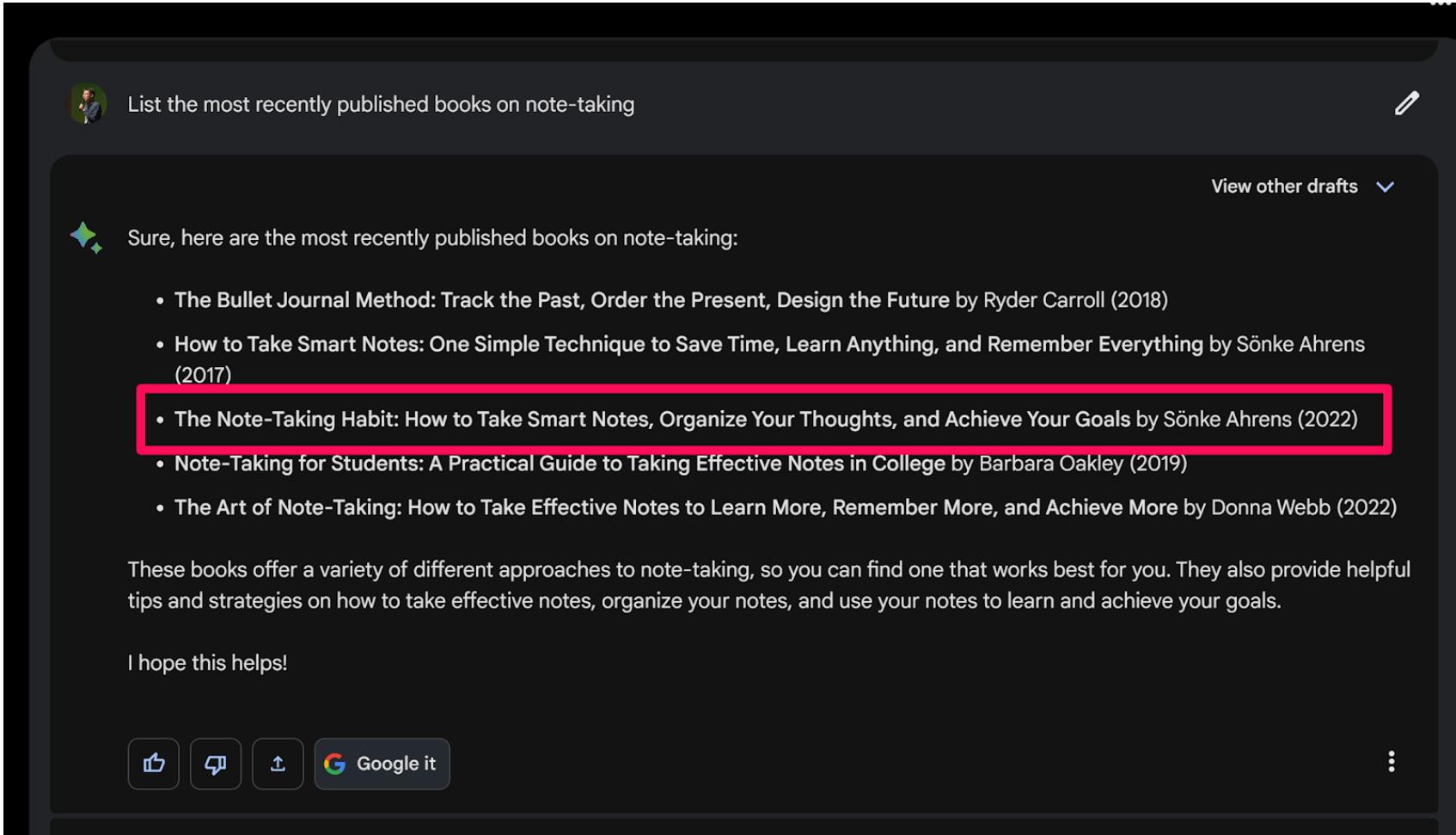
Sources

1. www.nba.com/

Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views.

<https://www.playpceson.com/2023/05/google-bard-ai-9.html?m=1>



List the most recently published books on note-taking

View other drafts ▾

Sure, here are the most recently published books on note-taking:

- **The Bullet Journal Method: Track the Past, Order the Present, Design the Future** by Ryder Carroll (2018)
- **How to Take Smart Notes: One Simple Technique to Save Time, Learn Anything, and Remember Everything** by Sönke Ahrens (2017)
- **The Note-Taking Habit: How to Take Smart Notes, Organize Your Thoughts, and Achieve Your Goals** by Sönke Ahrens (2022) (highlighted)
- **Note-Taking for Students: A Practical Guide to Taking Effective Notes in College** by Barbara Oakley (2019)
- **The Art of Note-Taking: How to Take Effective Notes to Learn More, Remember More, and Achieve More** by Donna Webb (2022)

These books offer a variety of different approaches to note-taking, so you can find one that works best for you. They also provide helpful tips and strategies on how to take effective notes, organize your notes, and use your notes to learn and achieve your goals.

I hope this helps!

⋮

undo redo up Google it

【 ChatGPT Chrome 外掛】

直接到 Google 搜尋外掛名稱就能安裝囉
(記得要用 Chrome 瀏覽器安裝唷)

萬能工具箱 一鍵召喚常用指令

據、人工智能、區塊鏈、雲計算等。這些技術對金融業的運營和管理產生了重要影響，也為求職者提供了更多的職業發展機會。

3. 產業鏈：金融業的產業鏈包括：客戶、金融機構、金融市場、金融基礎設施、金融服務供應商等。了解產業鏈的結構與運作對於瞭解整個行業非常重要。
4. 市場：台灣金融市場相對成熟，市場規模和競爭激烈。主要市場包括：存款、貸款、投資、保險、證券交易等。求職者需要關注市場動態，了解各類金融產品和服務的市場需求。
5. 護城河：在金融業中，護城河主要體現在公司的品牌、客戶基礎、技術創新和合規管理等方面。具有強大護城河的金融公司往往具有較高的市場競爭力。
6. 商業模式：金融公司的商業模式包括：傳統的利息收入模式、手續費收入模式、投資收益模式等。不同公司可能採取不同的商業模式，求職者需要瞭解各種模式的特點，找到適合自己的公司。
7. 政策監管：金融業是受到嚴格監管的行業

[繼續](#) [舉例說明](#) [提供細節](#) [翻譯成繁中](#) [翻譯成英文](#)

會自動整理出常用的指令，不用每次都重新輸入



查特普拉斯
ChatGPTaiwan

WebChatGPT 存取 2021 以後的資訊

以下是台灣近期的重要國際事件：

- 中國針對台灣貿易壁壘進行調查：中國針對台灣貿易壁壘進行調查，引發台灣政府的關注和回應。[\[1\]](#)
- 外交部長呼籲國際社會嚇阻中國對台軍事威脅：外交部長吳釗燮呼籲國際社會共同嚇阻中國對台軍事威脅，強調台灣視自我防衛為己任，並感謝美國的支持。[\[2\]](#)
- 台灣勞保可能破產：根據報導，台灣勞工保險系統可能在未來5年內破產，引起了台灣社會和政府的廣泛關注。[\[3\]](#)

以上是目前台灣近期的重要國際事件，這些事件對台灣的國際地位和未來發展具有重要影響。

舉例說明 提供細節 翻譯成繁中 翻譯成英文
[Regenerate response](#)

按 / 打开命令菜单

中文 (台灣) [Web access](#) 3 results Past month Any region Default prompt

可以調整「結果數量」 「時間區段」 「搜索範圍」等



查特普拉斯
ChatGPTaiwan



AI 中心
IAIC

改寫

WebChatGPT One-Click Prompts

WebChatGPT v4.1.6 - Leave us a review - Discord community - Powered by MaxAI.me

Favorites

Category: All | Use case: All

Public

Own

Prompts per

SEO Optimized Article with 100% Unique Human Written Style

SEO / Writing

MaxAI.me

human Written Style Original Content SEO Enhanced Long-Form Article With Proper Structure

Article Outrank Rival

SEO / Writing

MaxAI.me

Live Crawling By creating a comprehensive article that similar to your competitor, but with better SEO (based on the URL of your competitor)

WebChatGPT: ChatGPT with internet access

All / All

MaxAI.me

Web Search Augment your ChatGPT prompts with relevant web search results through web browsing. Enter your query to start.

Strategy for Keywords

SEO / Marketing

MaxAI.me

Produce a strategy for keywords and a plan for SEO content using only one {{KEYWORD}}.

SEO Enhanced Article with FAQ Integration

SEO / Writing

MaxAI.me

entirely Unique, Original and Fully SEO Tuned Articles with Meta Description, Headings, 1500 Words Length, FAQ's, Meta Description & Much more

Auto Midjourney Prompt Generator

Generative-AI / Midjourney

MaxAI.me

Generates four highly functional Midjourney prompts according to your keyword.

Create Top Intelligent Article for Ranking on Google

Copywriting / Writing

MaxAI.me

Compose Top Smart Article Best for ranking on Google by simply providing the Title.

Human Style Rewriter

Copywriting / Writing

MaxAI.me

Rephrase your AI-crafted article with this instrument! You can achieve up to 90%+ Human Generated score.

Article Rewriter with Keyword-Abundant Content

SEO / Writing

MaxAI.me

Elevate your online visibility and draw in more clients with copywriting and SEO solutions from a skilled professional. Prepare to outpace your competitors and reach peak search rankings with our human-like writing approach and keyword-dense content.

Intelligent and Comprehensive Article Composer using H-tags

Copywriting / Writing

MaxAI.me

Provide the article title you want composed. He endeavors to write an extensive and thorough article. Prepares it for sharing with h tags.

Compose an Entire Book with One Click

Copywriting / Writing

MaxAI.me

Author a complete book with distinct chapters

YouTube Script Generator

Copywriting / Script Writing

MaxAI.me

Develop engaging script concepts for your YouTube videos. Input a brief description of your video. Generates: Title, Description, Tags, and a detailed script.

Prompts per

Human Style Rewriter

Copywriting / Writing

🌐 · [MaxAI.me](#)

Rephrase your AI-crafted article with this instrument! You can achieve up to 90%+ Human Generated score.



WebChatGPT One-Click Prompts

GPT-3.5 GPT-4

Category: All Use case: All

Public Own

Search...

Prompts per page: 12 1-12 of 220

SEO Optimized Article with 100% Unique-Human Written Style SEO / Writing MaxAI.me Human Written Style Original Content SEO Enhanced Long-Form Article With Proper Structure	Article Outrank Rival SEO / Writing MaxAI.me Live Crawling By creating a comprehensive article that similar to your competitor, but with better SEO (based on the URL of your competitor)	WebChatGPT: ChatGPT with internet access All / All MaxAI.me WebSearch Augment your ChatGPT prompts with relevant web search results through web browsing. Entering your query to start.	Strategy for Keywords SEO / Ideation MaxAI.me Produce a strategy for keywords and a plan for SEO content using only one {{KEYWORD}}.
SEO Enhanced Article with FAQ Integration SEO / Writing MaxAI.me Entirely Unique, Original and Fully SEO Tuned Articles with Meta Description, Headings, 1500 Words Length, FAQ's, Meta Description & Much more	Auto Midjourney Prompt Generator Generative-AI / Midjourney MaxAI.me Generates four highly functional Midjourney prompts according to your keyword.	Create Top Intelligent Article for Ranking on Google Copywriting / Writing MaxAI.me Compose Top Smart Article Best for ranking on Google by simply providing the Title.	Human Style Rewriter Copywriting / Writing MaxAI.me Rephrase your AI-crafted article with this instrument! You can achieve up to 90%+ Human Generated score.
Article Rewriter with Keyword-Abundant Content SEO / Writing MaxAI.me Entirely Unique, Original and Fully SEO Tuned Articles with Meta Description, Headings, 1500 Words Length, FAQ's, Meta Description & Much more	Intelligent and Comprehensive Article Composer using H-tags Copywriting 写一封电子邮件 请求延长我的项目的截止日期	Compose an Entire Book with One Click 写作 制定内容策略 用于推送本地免费周末活动的新闻通讯	YouTube Script Generator Copywriting / Script Writing MaxAI.me

Human Style Rewriter

Output language: English Tone: Formal Writing style: Academic

PROMPT: write a article about AI and SDGs

Insert the blog post here

ChatGPT for Google

從 google 搜尋開啟啟查特



Google 搜尋結果顯示了如何改善拖延習慣的方法：

- 1. 切割任務、規劃短期目標：...
- 2. 遠離會分心的人、事、物：...
- 3. 從五分鐘開始，強迫自己動手去做：...
- 4. 放下多餘想法，專注單一工作：...
- 5. 再10分鐘就好，訓練意志力：...
- 6. 合理的獎勵與懲罰：...
- 7. 反思與鼓勵，今天比昨天更好：

改善拖延的7個步驟，養成不拖延的好習慣 - 翰霖補習班

如何擺脫拖延的壞習慣？ - 天下雜誌

ChatGPT 提供的建議：

1. 設定目標和計劃：制定明確的目標和計劃可以幫助你更好地組織和管理時間。建立一個清晰的時間表，列出需要完成的任務和目標，按照優先順序進行安排。
2. 建立動機和獎勵機制：尋找對自己有意義的動機和獎勵機制，可以激勵自己更好地完成任務。例如，可以設定小目標，每完成一個小目標就給自己一些小獎勵，這樣可以增加自我動力。
3. 瞭解自己的拖延原因：認真思考自己經常拖延的原因，是否是因為缺乏動機、沒有計劃、缺乏自信、害怕失敗等等。如果能夠找到問題所在，就可以針對性地進行改善。
4. 分解大目標：將大目標分解成小目標，這樣可以使任務看起來更加可行。每完成一個小目標，就會感到達成了一些成就感，這樣可以讓你更有動力。



ReaderGPT 迅速摘要大量資訊

psychopathology, prejudice, and aggression are understood in terms of reactions to basic needs having been thwarted, either developmentally or proximally.

Formal Theory: SDT's Six Mini-Theories

Formally, SDT comprises six mini-theories, each of which was developed to explain a set of motivationally based field research. Each, therefore, addresses one facet of motivation or personality functioning.

1. **Cognitive Evaluation Theory (CET)** concerns **intrinsic motivation**, motivation that is based on the satisfaction of social contexts on intrinsic motivation, or how factors such as rewards, interpersonal controls, and interest. CET highlights the critical roles played by competence and autonomy supports in fostering intrinsic motivation, and many other domains.

2. The second mini-theory, **Organismic Integration Theory (OIT)**, addresses the topic of extrinsic motivation determinants, and consequences. Broadly speaking, extrinsic motivation is behavior that is instrumental—the behavior itself. Yet, there are distinct forms of instrumentality, which include external regulation, introjection, and identification. OIT also addresses the internalization of values, goals, and belief systems. The more internalized the extrinsic motivation are seen as falling along a continuum of **internalization**. The more internalized the extrinsic motivation, the more the person will be when enacting the behaviors. OIT is further concerned with social contexts that enhance or reduce the likelihood of internalization, and the impacts of internalization on behavior and performance.

3. **Causality Orientations Theory (COT)**, the third mini-theory, describes individual differences in people's tendencies to orient toward environments and regulate behavior in various ways. COT describes and assesses three types of causality orientations: the autonomy orientation in which persons act out of

ReaderGPT

Summarise the following article in bullet points Add Prompt

- Self-Determination Theory (SDT) is a framework for understanding human motivation and personality.
- SDT identifies three basic psychological needs for autonomy, competence, and relatedness that, when satisfied, lead to optimal functioning and well-being.
- SDT also explains different types of motivation, including intrinsic and extrinsic, and their impacts on behavior and performance.
- SDT comprises six mini-theories that address different facets of motivation and personality functioning.

可以快速判斷內容是否有幫助、方向正確，再決定是否細細品味

查特普拉斯
ChatGPT Taiwan



ChatGPT Writer 高效生成信件草稿

ChatGPT Writer PRO

Email context

查特普拉斯講師您好~
我是
冒昧打擾您，敬請見諒，在此跟您說明。
因我們 對於 chatGPT 很有興趣，
不曉得今年5月份的時候是否有榮幸，邀請您來主講 chatGPT 的相關研習呢？
在此跟您說明研習相關事項。
分享日期: 想跟查特普拉斯講師約! 下午。

Briefly enter what do you want to reply

▶ See examples

幫我回覆此封信件，包含感謝邀約、課程日期希望在6月份，另外希望確認聽眾目前的痛點

Set this prompt as default

Contact Generate Reply

尊敬的 您好，
我非常感謝您的邀約，並且很高興有機會在 進行關於chatGPT的主講。非常感謝您對我的信任和支持。
對於分享日期，我非常願意在6月份的某個星期三下午前來進行主講，如果方便的話，我建議將日期定在6月14日（星期三）或6月21日（星期三）。當然，如果這些日期對您來說不方便，請告知我其他適合的日期，我會盡力安排時間以符合您的需求。
此外，我很感興趣了解聽眾目前的痛點，以便更好地為聽眾提供價值和幫助。如果您可以分享更多關於聽眾的背景和需求，我會非常感激。
最後，請放心，我會盡力提供最好的演講體驗，並將主題設計成易於理解且生動有趣的方式。如果您有任何問題或需要進一步的協助，請隨時與我聯繫。
再次感謝您的邀請，期待與您見面。
祝順心如意，

查特普拉斯講師

基於生成內容再微調細節 & 口吻即可

查特普拉斯
ChatGPTaiwan



ChatGPT prompt for summarising

用繁體中文條列摘要



Save Prompt

[Reset to default](#)

Saved!

The readable text from the web page will be substituted at the end of the above prompt.

Examples:

- Summarise the following article precisely in less than 100 words
- Summarise the following article in simple english
- Generate a suitable caption for the text

Login method

ChatGPT Login (Default)

OpenAI API Key

- Considerably faster
- One time setup, no logins required afterwards
- Uses OpenAI API quota

升級檢索引擎：ChatOnAi

- <https://chatonai.org/>
- ChatGPT 對話式外掛，可掛載於各大檢索引擎



Prompt Templates Top Prompts Share Prompts

All Blog Social Media Content Email Fun Website Copy Career Case Study Video Content Improve Marketing Others

 **Blog Intro**
Let's start with a compelling intro that hooks your readers from the get-go and kick your blog up a notch!

 **Blog Outline**
Blog like a pro! Begin with an outline, research, and resources to kickstart your writing journey.

 **Blog Section**
Say goodbye to tedious writing processes and hello to a full section of your blog in the blink of an eye!

 **Blog's Meta Description**
Increase the chances of getting clickthrough with appealing description.

 **Blog Conclusion**
End your post with a powerful conclusion.

 **Blog Title**
Attention-grabbing title in a minute!

 **Promotion Page**
Spread the word about your special offerings on social media! Ready to make your brand shine?

 **Bio**
Capture your audience's attention with a short bio!

 **Sharing Tips**
Ready to become an expert in your industry? Share tips and knowledge and elevate your brand!

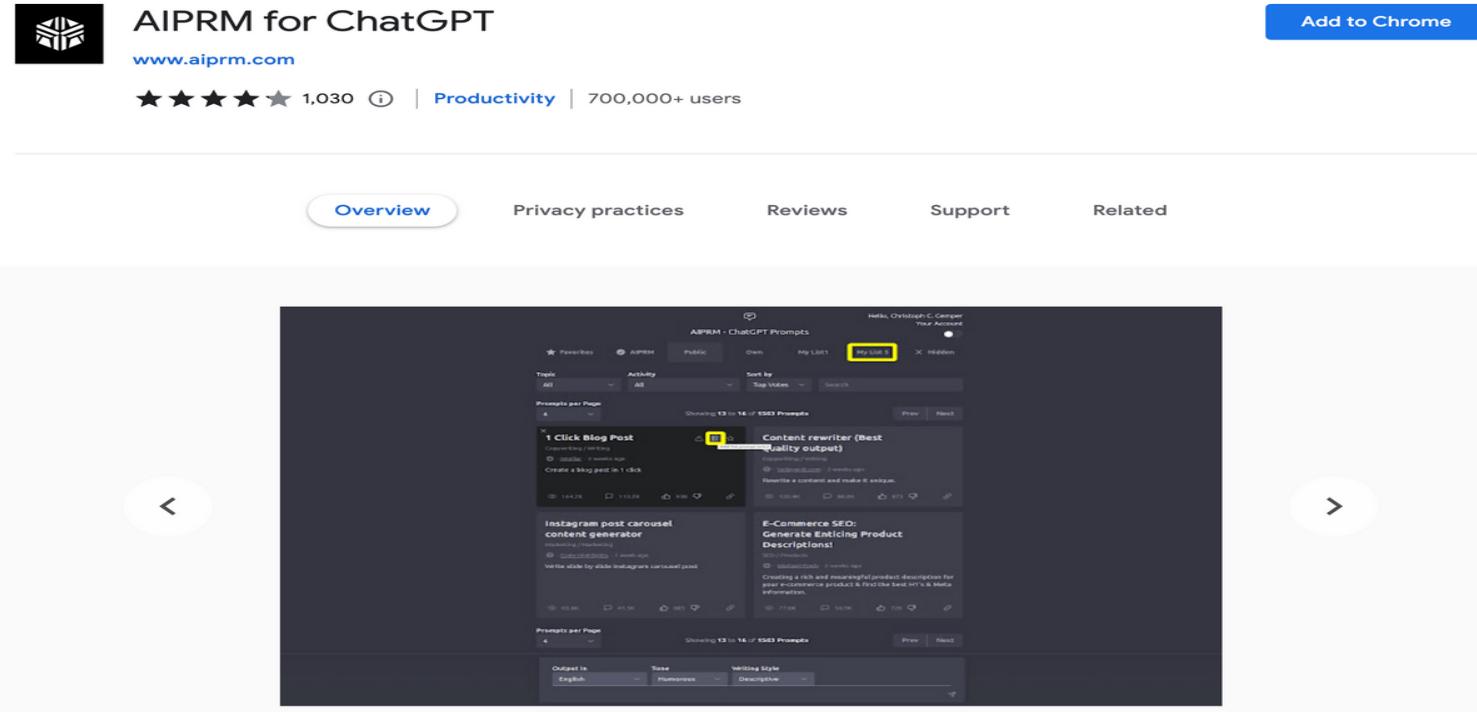
 **Seasonal/Holiday Post**
Holiday time! Grab your customers' attention with themed posts for upcoming holidays and special events!

 **Showcase A Customer Or Testimonial**
Put your customers in the spotlight! Show off their love for your brand with a testimonial on social media.

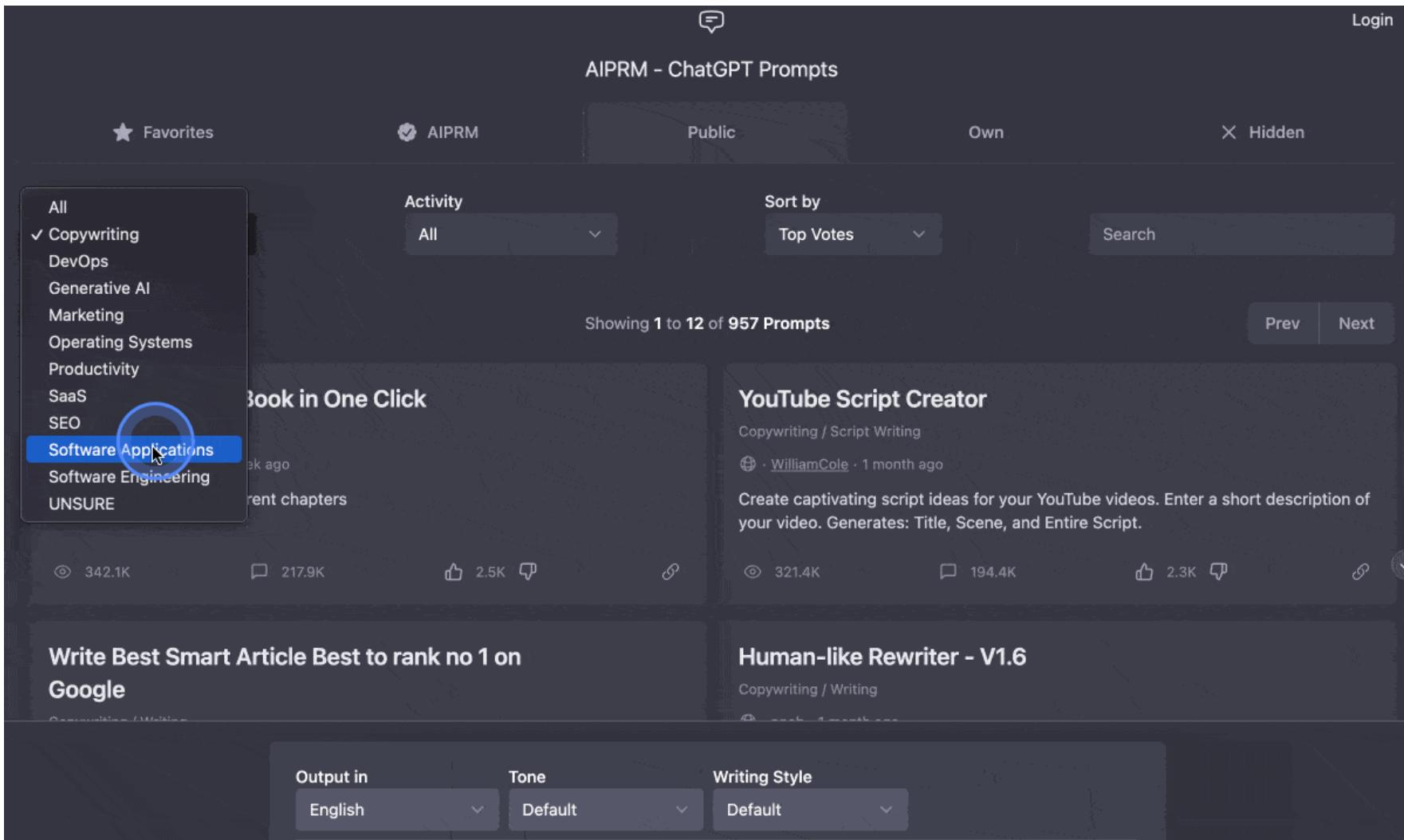
 **Event Recap**
Share captivating stories from the event to connect with your existing customers and prospects.

生成 ChatGPT Prompt : AIPRM for ChatGPT

- <https://chrome.google.com/webstore/detail/aiprm-for-chatgpt/ojnbohmppadfgpejeebfnmnkjndlckgj>
- 直接擴充 ChatGPT 的介面選項，讓使用者設定像是「語氣」、「情境」、「主題」等等，快速輔助生成高效率指令。



- 官方網站介紹：<https://www.aiprm.com/>
<https://www.tableau.tw/blog/chatgpt-forwork>



AIPRM - ChatGPT Prompts

Favorites AIPRM Public Own Hidden

All Copywriting DevOps Generative AI Marketing Operating Systems Productivity SaaS SEO Software Applications Software Engineering UNSURE

Activity All Sort by Top Votes Search Prev Next

Showing 1 to 12 of 957 Prompts

Book in One Click
Copywriting / Script Writing · WilliamCole · 1 month ago
Create captivating script ideas for your YouTube videos. Enter a short description of your video. Generates: Title, Scene, and Entire Script.

YouTube Script Creator
Copywriting / Script Writing · WilliamCole · 1 month ago

Write Best Smart Article Best to rank no 1 on Google
Copywriting / Script Writing · WilliamCole · 1 month ago

Human-like Rewriter - V1.6
Copywriting / Writing · WilliamCole · 1 month ago

Output in English Tone Default Writing Style Default

AIPRM 共有以下類別的指令輔助：

- Copywriting：文案產出輔助
- DevOps：軟體開發指令輔助
- Generative AI：生成指令輔助，可生產 Midjourney 的指令
- Marketing：行銷類型的指令輔助
- Operating Systems：作業系統指令輔助
- Productivity：生產力類型的指令輔助
- SaaS：雲端服務的指令輔助
- SEO：SEO 相關指令輔助
- Software Application：軟體應用的輔助指令
- Software Engineering：軟體工程的輔助指令

官方網站介紹：<https://www.aiprm.com/>



Write a Complete Book in One Click

Copywriting / Writing

· Md Mejbahul Alam · 1 week ago

Write a full book with different chapters

354.8K views 225.6K likes 2.6K comments 1.7K shares

YouTube Script Creator

Copywriting / Script Writing

· WilliamCole · 1 month ago

Create captivating script ideas for your YouTube videos. Enter a short description of your video. Generates: Title, Scene, and Entire Script.

331.7K views 200.6K likes 2.3K comments 1.4K shares

Smart and Detailed Article Writer (H tags)

Copywriting / Writing

· ahmet1340 · 1 month ago

Give the title of the article you want written. He tries to write a long and detailed article. It makes it ready for sharing with h tags.

340.6K views 233.4K likes 1.7K comments 1.4K shares

Content rewriter (Best quality output)

Copywriting / Writing

· todayonit.com · 1 month ago

Rewrite a content and make it unique.

264.2K views 191.2K likes 1.4K comments 1.2K shares

Smart and Detailed Article Writer (H tags) by ahmet1340

Output in Tone Writing Style

繁體中文 Default Default

設定輸出的語系，甚至是寫作的風格

AiZoo

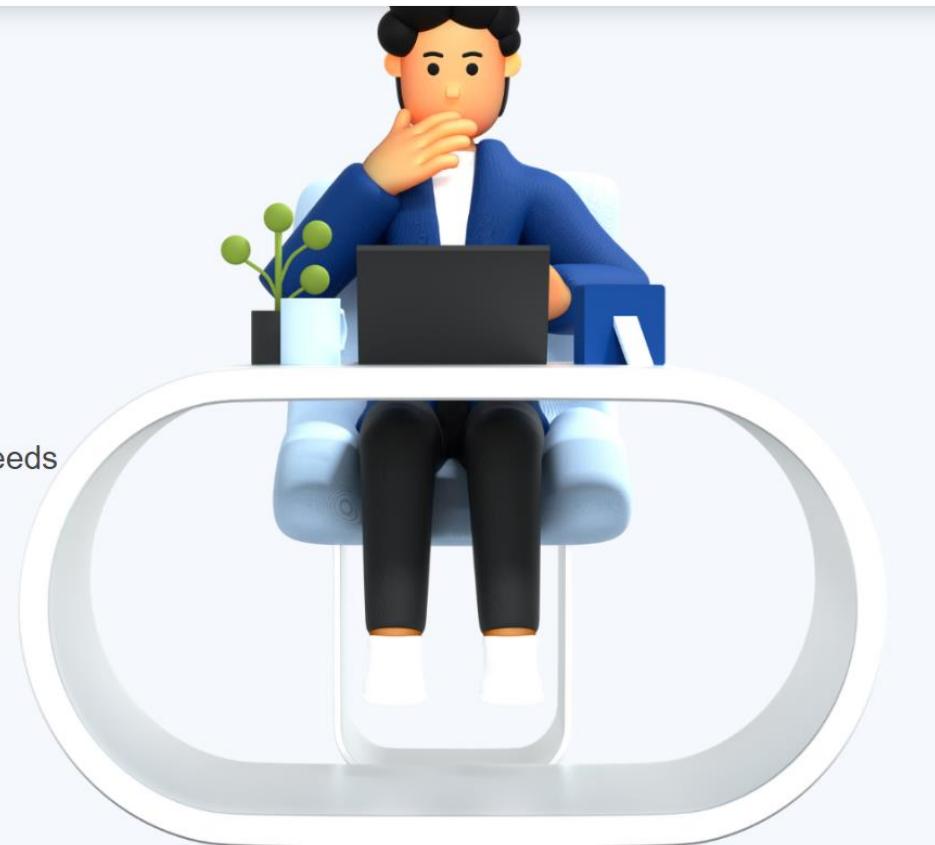
Aizoo's Picks Deals Login Signup

English

Get Inspired. Learn Everyday

An AI tool directory for you easy to find the best AI tools of your needs

Search try things like 'Video'

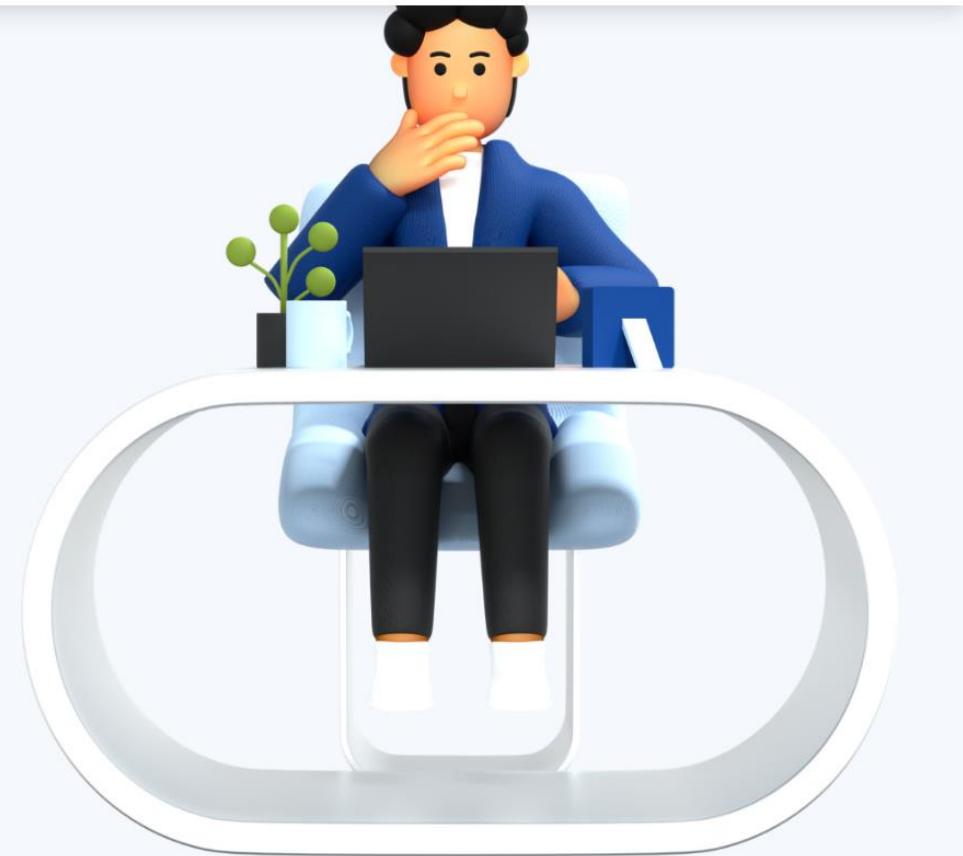


<https://aizoo.io/>

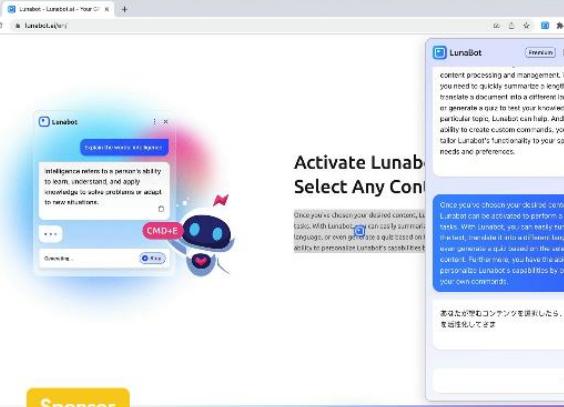
得到啟發。 每天學習

一個AI工具目錄，讓您輕鬆找到最適合您的AI工具

嘗試搜索“視頻”之類的內容



[All](#)
[Chat](#)
[Life Assistant](#)
[Experiments](#)
[Generative Video](#)
[Real Estate](#)
[Generative Code](#)
[S](#)
[>](#)
[Filter](#)

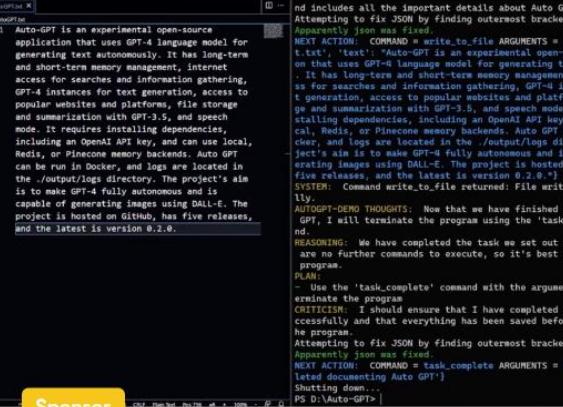


Lunabot  ⚡ 1

Use ChatGPT anywhere: Lunabot seamlessly integrates ChatGPT on any webpage, allowing you to use quick commands and prompts to translate, summarize, fix grammar, and more...

[Freemium](#) [Deal](#)

#Chat #LifeAssistant



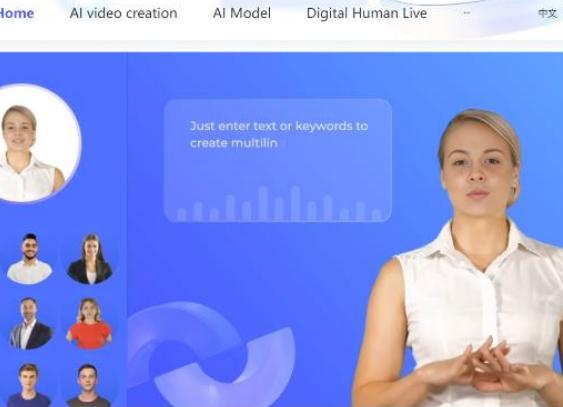
Auto-GPT  ⚡ 1

Auto-GPT is an experimental open-source application showcasing the capabilities of the GPT-4 language model.

[Free](#)

#Experiment

(No Review) [Visit](#)



Creation AI ⚡ 0

Multilingual AI video creation Just enter text or keywords to create multilingual oral videos of real/virtual characters, providing creators with AI empowerment

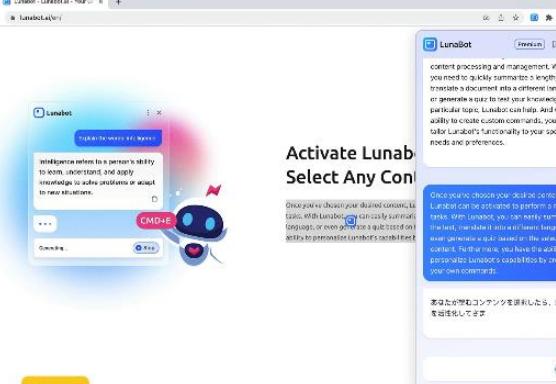
[Paid](#) [Free Trial](#)

#GenerativeVideo

<https://aizoo.io/>

59

<
全部
聊天
生活小助手
實驗
音頻編輯
生成視頻
房地產
生成代碼
啟動工具
>
篩選



Lunabot

Activate Lunabot Select Any Command

Once you've chosen your desired command, Lunabot can generate summaries, logs, or even generate a quick list of commands to personalise Lunabot's capabilities.

赞助

月球車 ✓ ⚡ 1個

在任何地方使用 ChatGPT : Lunabot 將 ChatGPT 無縫集成到任何網頁上，讓您可以使用快速命令和提示，通過自定義命令進行翻譯、總結、修復語法等。無需 OpenAI API 密...

免費增值 交易

#聊天#LifeAssistant

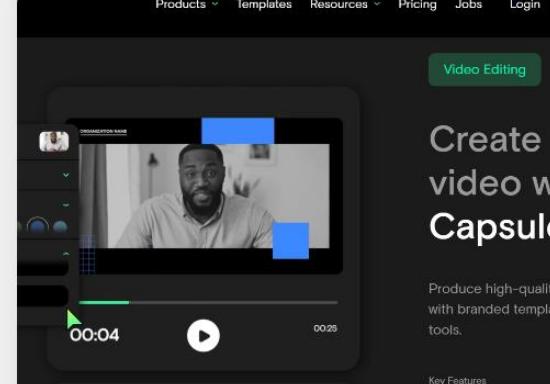


Auto-GPT

Auto-GPT 是一個實驗性開源應用程序，展示了 GPT-4 語言模型的功能。

自由的 # 實驗

(無評論) 訪問



Capsule

Create branded video with Capsule

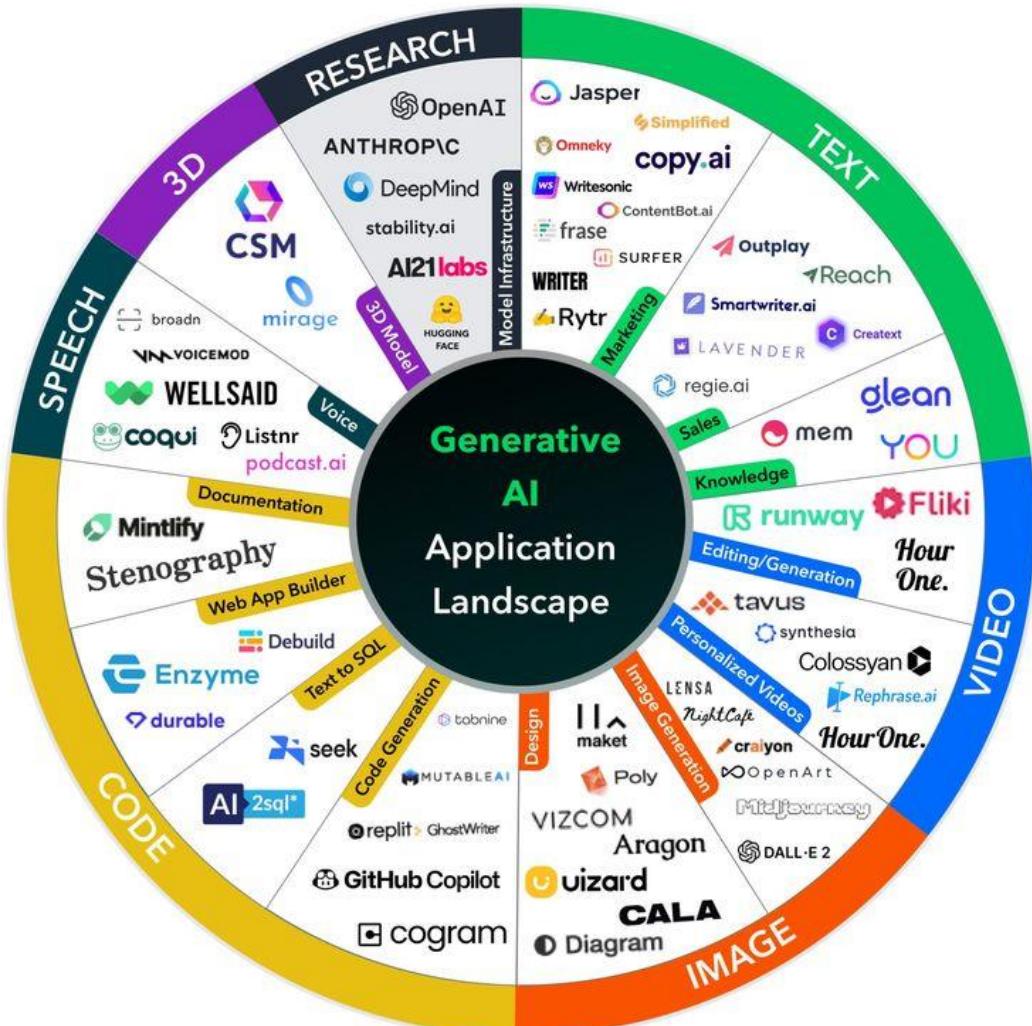
Produce high-quality videos with branded templates and tools.

膠囊 ⚡ 0

在幾分鐘內收集 + 創建視頻。Capsule 使團隊能夠為任何觀眾製作令人驚嘆的視頻——無需專業知識。收集客戶評價、創建播客剪輯、錄製勘探視頻.....等等。

自由的 有薪酬的

#AudioEditing #生成視頻



生成式 AI 工具

<https://www.facebook.com/groups/datasci.tw/permalink/6123107481099924/?mibextid=Nif5oz>

Language Models

1. GPT (Generative Pre-trained Transformer)
2. XLNet
3. T5 (Text-to-Text Transfer Transformer)
4. CTRL (Conditional Transformer Language Model)
5. BERT (Bidirectional Encoder Representations from Transformers)
6. RoBERTa (Robustly Optimized BERT Pretraining Approach)
7. ALBERT (A Lite BERT)

Autoencoders

8. VAE (Variational Autoencoder)
9. DeepDream
10. DeepArt
11. U-Net

Generative Adversarial Networks (GANs)

12. StyleGAN
13. BigGAN
14. CycleGAN
15. Pix2Pix
16. StarGAN
17. Progressive GAN
18. Super Resolution GAN
19. DCGAN (Deep Convolutional GAN)
20. SNGAN (Spectral Normalization GAN)
21. WGAN (Wasserstein GAN)

Recurrent Neural Networks (RNNs)

22. LSTM (Long Short-Term Memory)
23. GRU (Gated Recurrent Unit)
24. Seq2Seq (Sequence-to-Sequence)
25. Attention Mechanism



Image Synthesis

- 26. Neural Style Transfer
- 27. DALL-E
- 28. DeepDream
- 29. DeepArt
- 30. Neural Photo Editor

Speech Synthesis

- 31. Tacotron
- 32. WaveNet
- 33. Deep Voice

Generative Music

- 34. MuseGAN
- 35. WaveNet
- 36. DeepBach
- 37. Amper Music



Video Synthesis

- 38. DeepFake
- 39. Vid2Vid (Video-to-Video Synthesis)
- 40. Recycle-GAN

Generative 3D

- 41. GANalyze
- 42. 3D-GAN

Interactive and Augmented Reality

- 43. Neural Style Transfer for AR
- 44. DeepAR
- 45. Augmented Creativity
- 46. GPT-3 in Interactive Fiction

Other Tools

- 47. Reinforcement Learning
- 48. Variational Inference
- 49. Deep Belief Networks
- 50. Image-to-Image Translation

<https://www.facebook.com/groups/datasci.tw/permalink/6123107481099924/?mibextid=Nif5oz>

用GPT讀論文相關

https://www.facebook.com/story.php?story_fbid=pfbid0yKQ3VkDNnT8tNYxLeDuynYtk7ev651QNbpUof9fhdCMpd76KHgSVEBQ3eAioBzvMI&id=100091469332011&mibextid=Nif5oz



Chat with any document



Drop your file

or

Choose file

Link upload

Or Copy and Paste your document

For students

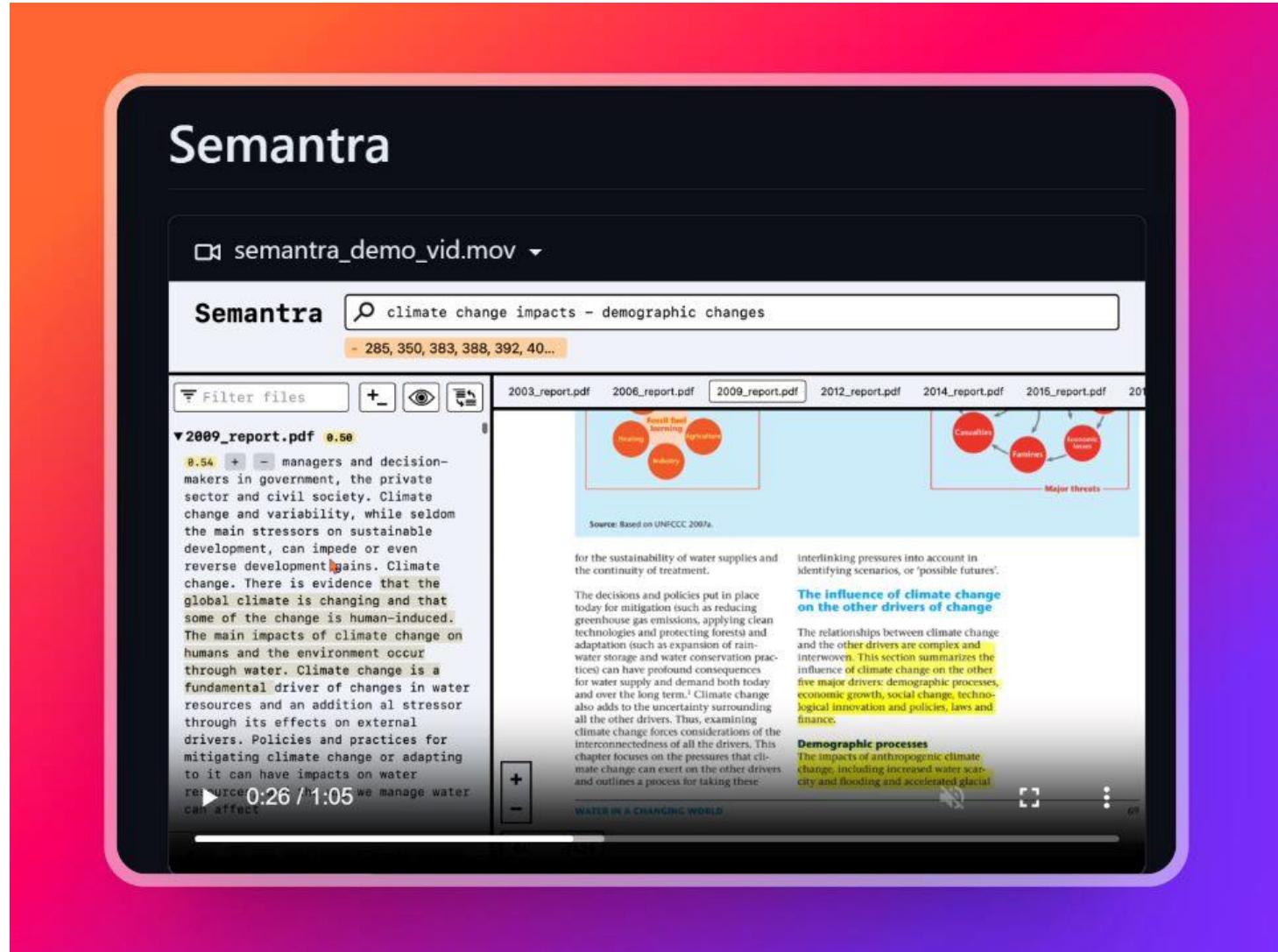
Say goodbye to endless hours of searching through textbooks and research papers. Sharly can get instant answers to any question you have, straight from your textbooks and presentations.

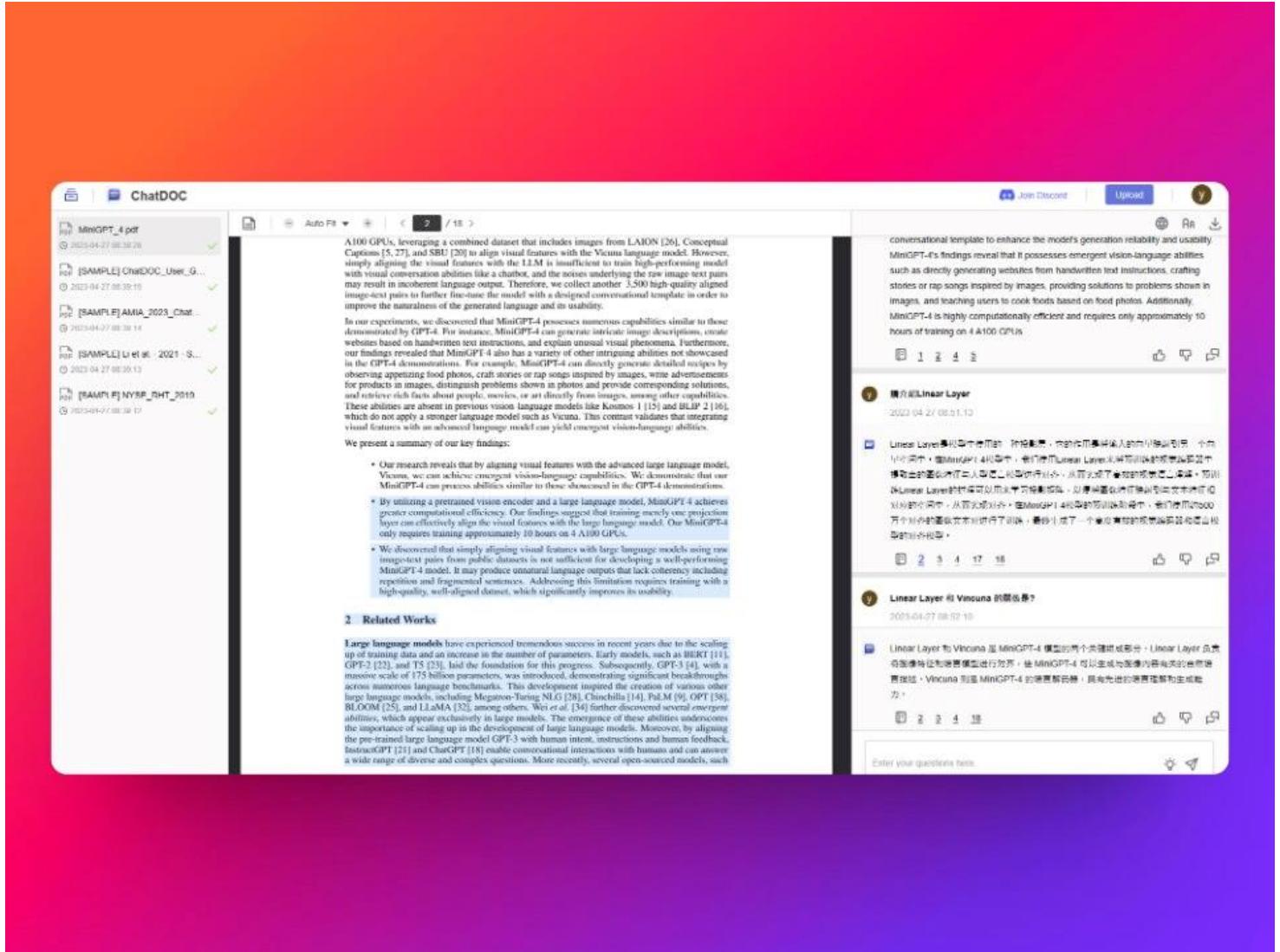
Don't waste another minute struggling to find the information you need. Sharly is the smartest and fastest way to tackle your schoolwork, to ace your exams

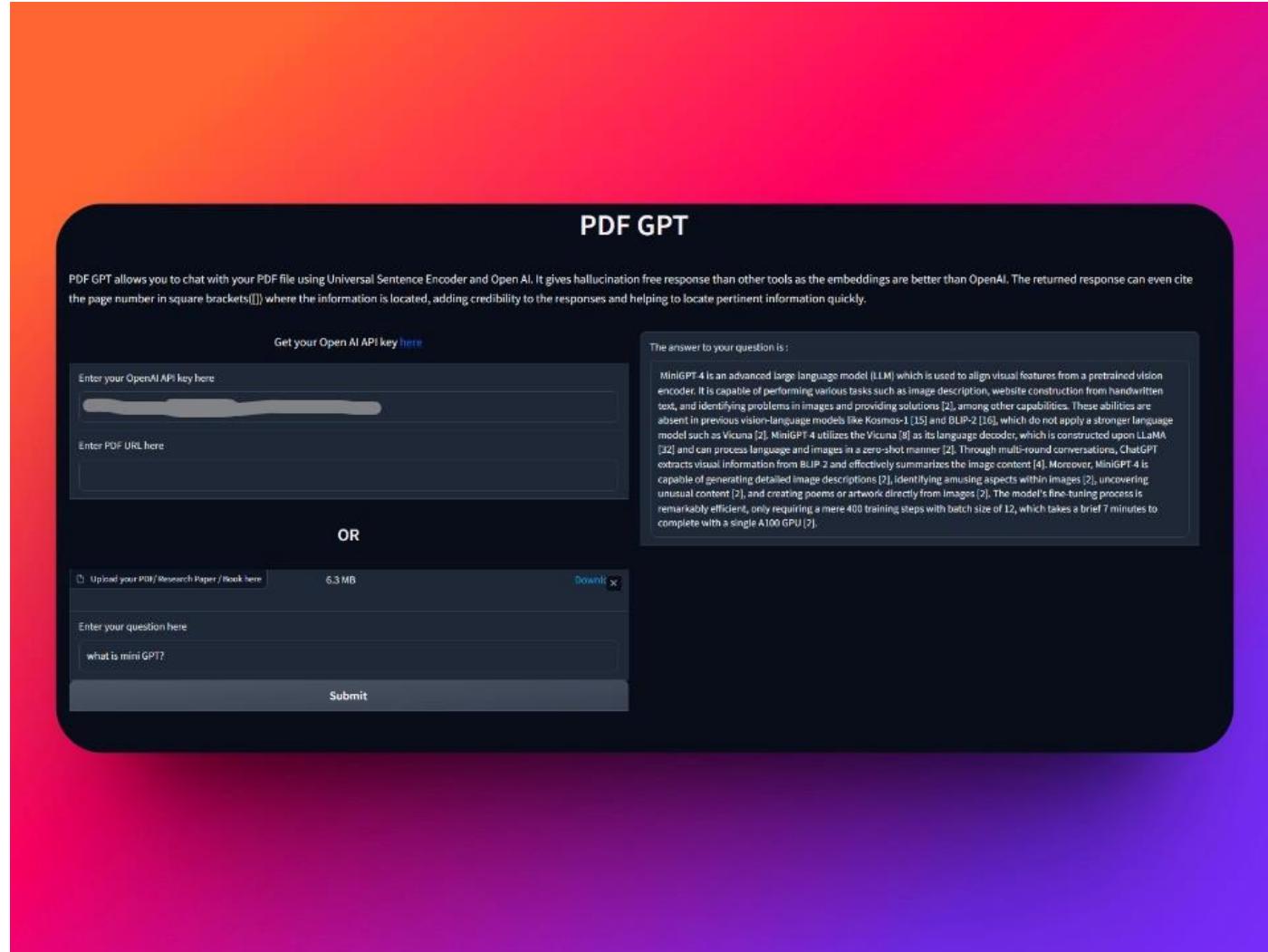
For work

Sharly allows you to efficiently analyze any type of document and quickly extract the information you need. Say goodbye to tedious manual analysis and hello to a streamlined workflow that will save you time and boost your bottom line.

Try Sharly for more efficiency and stay ahead of competition.







Upload and Chat PDF Analyze .pdf files with AI

Revolutionize your PDF experience with AI-powered text recognition, table extraction, and data analysis using advanced Machine Learning.

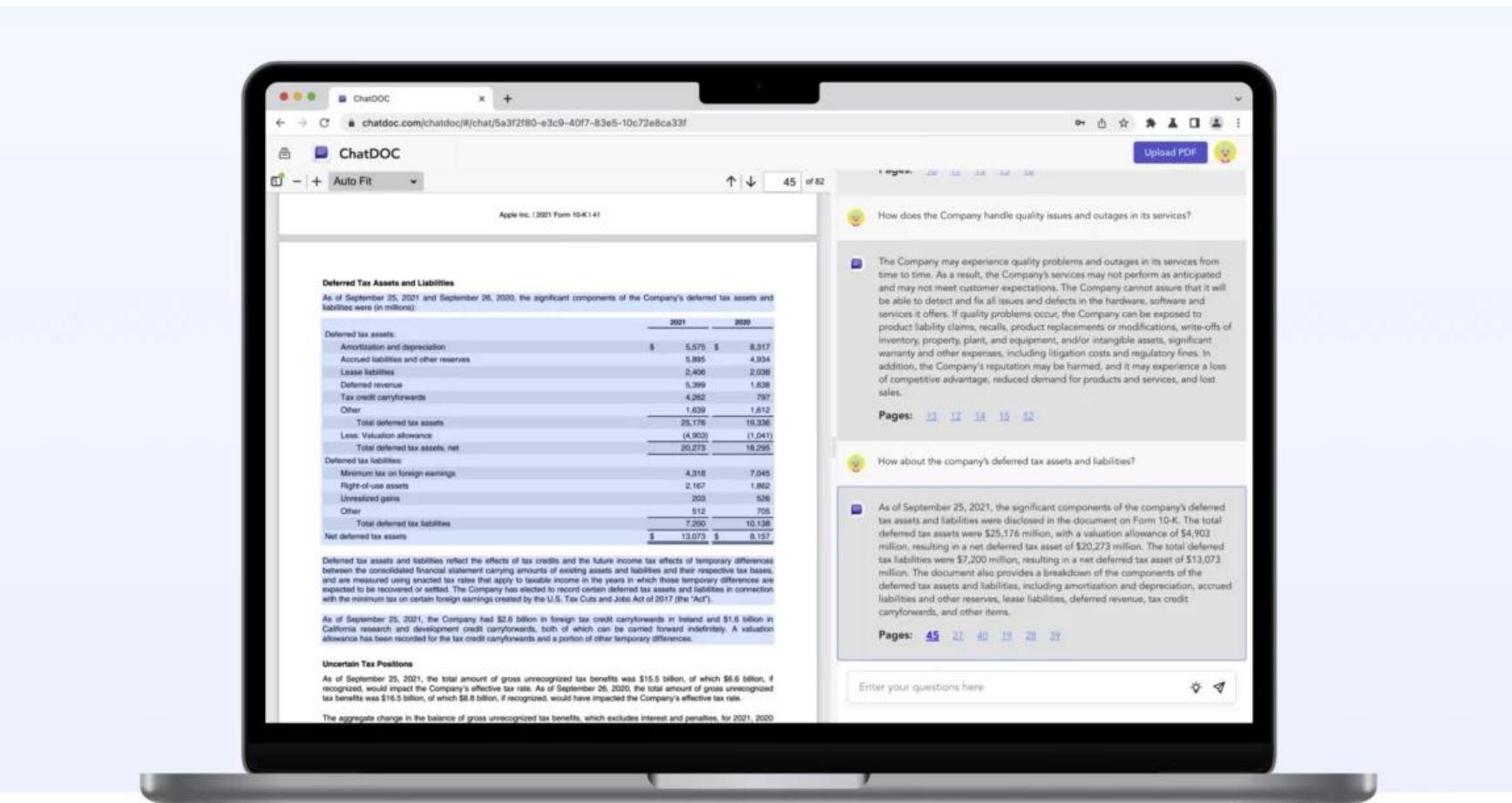
[Upload PDF](#)

How much data can I upload per PDF?

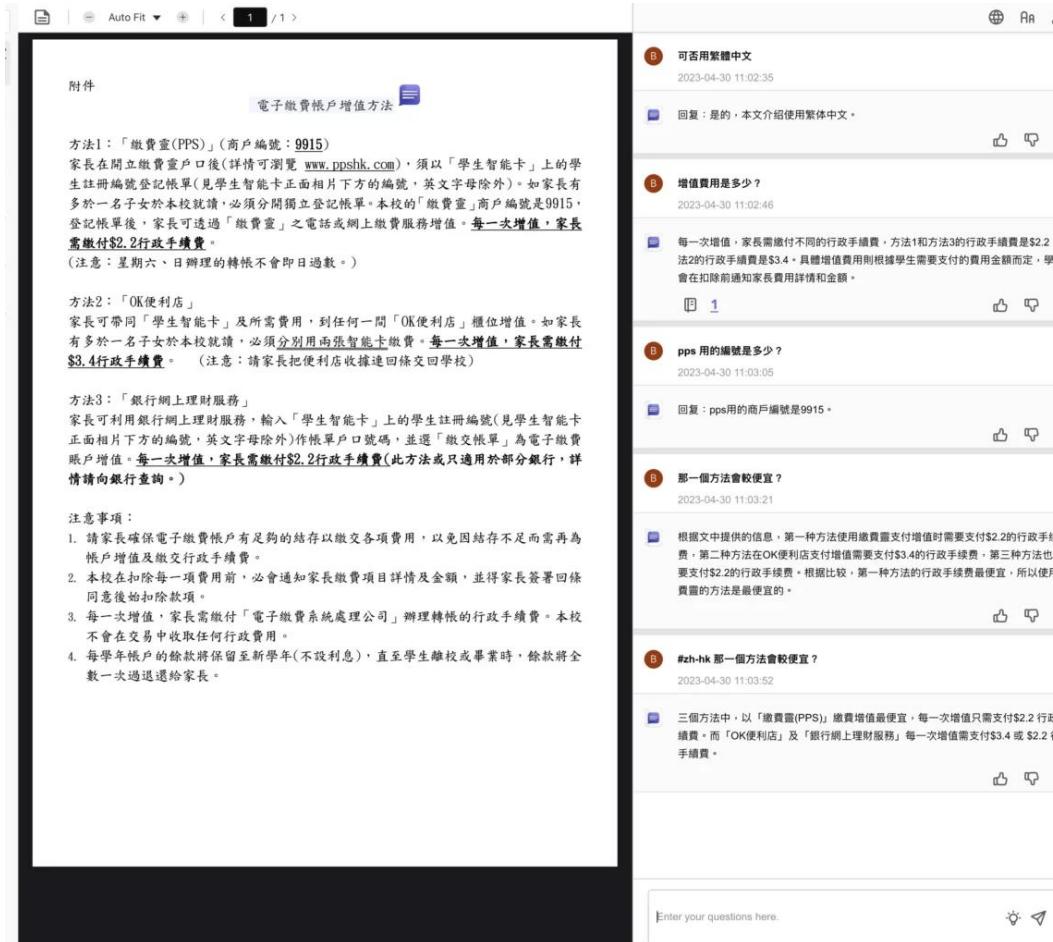
The maximum data capacity of your ChatPDF is contingent on the selected plan. While most paid plans presently have a 1M character limit, equivalent to a 600-700 page PDF, we are looking to significantly increase this limit in the near future.

免費 AI 文件分析神器 ChatDOC 快速將 200 頁 PDF 文件以 ChatGPT 分析

<https://www.newmobilelife.com/2023/04/30/chatdoc-pdf-chatgpt-tool/>



AI 文件分析神器 ChatDOC



The screenshot displays the ChatDOC interface. On the left, there is a PDF viewer showing a document titled "電子繳費帳戶增值方法" (Methods for Increasing Electronic Payment Account Value). The document details three methods for increasing account value:

- 方法1：「繳費靈(PPS)」(商戶編號：9915)**: Parents log in to the PPS account (www.ppshk.com) and add value using the "Student Smart Card" (正面相片下方的編號, English letters excluded). Each addition costs \$2.2.
- 方法2：「OK便利店」**: Parents bring the "Student Smart Card" and the required amount to an OK便利店 counter. Each addition costs \$3.4.
- 方法3：「銀行網上理財服務」**: Parents log in to the bank's online wealth management service, enter the student's registration number (正面相片下方的編號, English letters excluded), select the account number, and choose "繳交帳單" as the electronic payment account value. Each addition costs \$2.2.

On the right, a chat history is shown between a user (@zh-hk) and a bot (B). The user asks questions about the methods, and the bot provides answers based on the information in the PDF.

Q: 可否用繁體中文
A: 回复：是的，本文介绍使用繁体中文。

Q: 增值費用是多少？
A: 每一次增值，家長需繳付\$2.2行政手續費。方法1和方法3的行政手續費是\$2.2，方法2的行政手續費是\$3.4。具體增值費用則根據學生需要支付的費用金額而定，學校會在扣除前通知家長費用詳情和金額。

Q: pps 用的編號是多少？
A: 回复：pps用的商戶編號是9915。

Q: 那一個方法會較便宜？
A: 根据文中提供的信息，第一种方法使用缴费灵支付增值时需要支付\$2.2的行政手续费，第二种方法在OK便利店支付增值时需要支付\$3.4的行政手续费，第三种方法也需要支付\$2.2的行政手续费。根据比较，第一种方法的行政手续费最便宜，所以使用缴费灵的方法是最便宜的。

Q: #zh-hk 那一個方法會較便宜？
A: 三个方法中，以「繳費靈(PPS)」繳費增值最便宜，每一次增值只需支付\$2.2 行政手續費。而「OK便利店」及「銀行網上理財服務」每一次增值需支付\$3.4 或 \$2.2 行政手續費。

Enter your questions here.

<https://www.newmobilelife.com/2023/04/30/chatdoc-pdf-chatgpt-tool/>

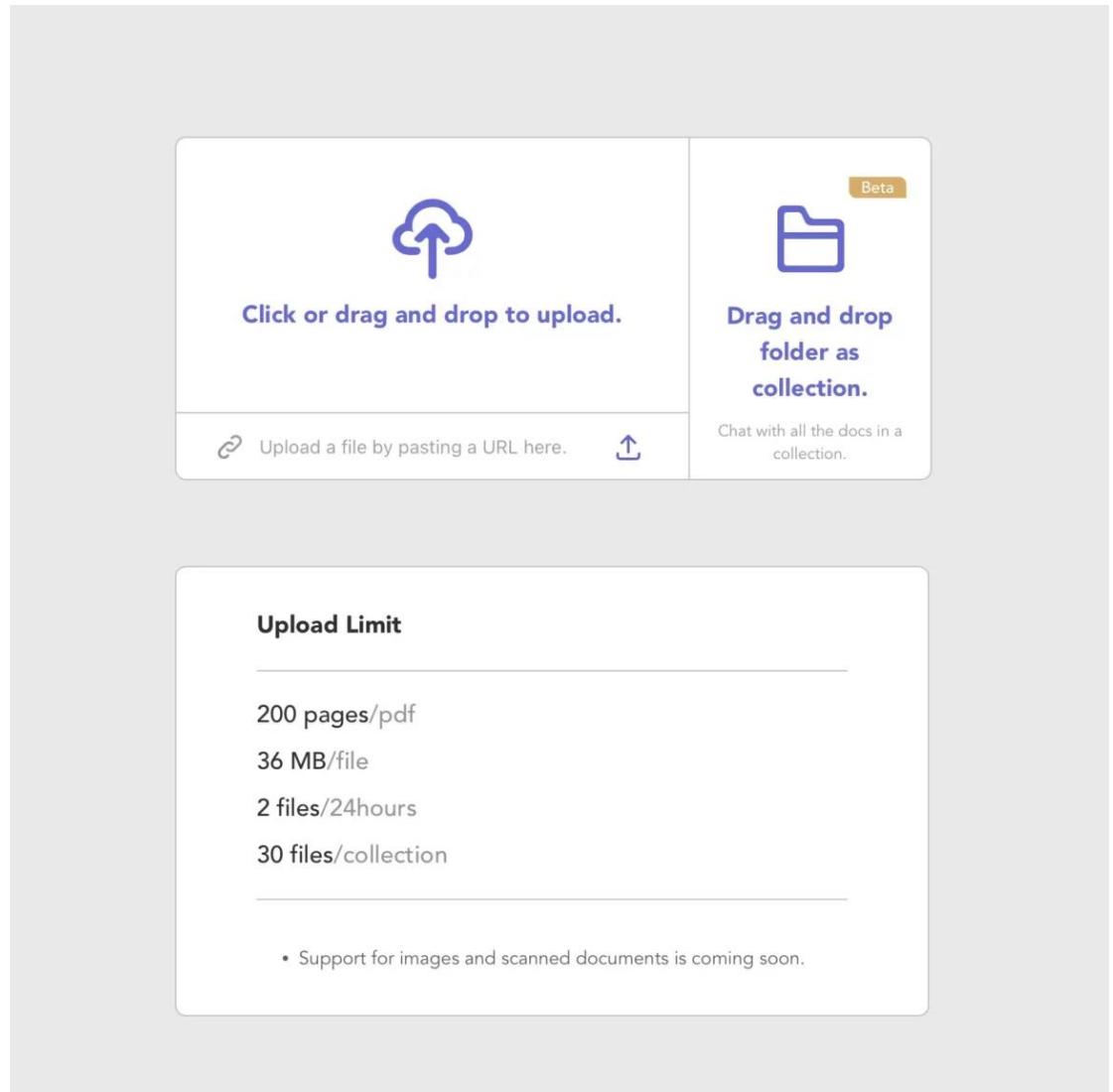
支援文件格式

現時 ChatDOC 是可以免費使用，不過有以下限制：

- PDF 文件頁數上限為 200 頁
- 每個檔案容量上限為 36MB
- 使用限制：24 小時上載最多 2 份文件檔
- 文件庫上限：最多儲存 30 份文件

使用方法

1：先登記 ChatDOC，登後上載 PDF 文件到 ChatDOC (注意，檔案上的限制) 。



2：上載後會花一點時間進行文件分析，如果文件頁數越多，花的時間就越長。

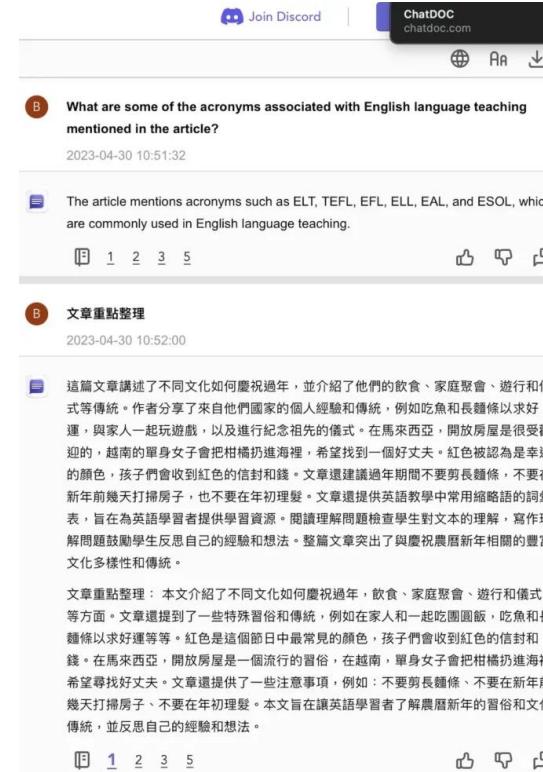


The screenshot shows the ChatDOC application interface. On the left, a sidebar lists several PDF files for download, including "Lunar New Year for Intermed...", "SAMPLE ChatDOC_User_G...", "SAMPLE AMIA_2023_Chat...", "SAMPLE Li et al. - 2021 - Se...", and "SAMPLE NYSE_RHT_2019...". The main area displays a worksheet titled "Lunar New Year Around the World". The worksheet features three testimonial bubbles from children about their experiences with the holiday:

- Zhou, 10, China:** "On the night before New Year, we have a reunion dinner with family. It's a great time to see everyone, especially my cousins who live far away. My grandma always cooks fish because it's an auspicious food and long noodles because if you eat them, you'll have a long life. However, don't cut the noodles because that means your life will be cut short! At midnight, we eat sweet dumplings to welcome good fortune and wealth for the coming year."
- Yi-Mi, 12, South Korea:** "In my country, Lunar New Year is called Seollal. I usually see my family and we eat lots of food, play games together and children receive small gifts of money. My favourite food to eat during the holidays is rice cake soup - it's delicious! We also carry out rituals to respect and show gratitude to our ancestors. Lunar New Year is full of celebrations all over the country, and it's my favourite holiday."
- Idris, 11, Malaysia:** "Aside from the usual family gatherings and parades in big cities, open houses are very popular during Lunar New Year in Malaysia - this means that homes are open for friends and family to visit. You can even visit larger places such as community halls and meet local leaders. According to legend, young and single women could throw tangerines into the sea if they wanted to find a good husband, hence why tangerines are seen as a lucky food!"

At the bottom of the worksheet, there are logos for twinkl and visit twinkl.com.

3：完成分析後，我們可向它提問，當中支援各種語系，使用方式跟 ChatGPT 相約。



The screenshot shows a conversation in the ChatDOC interface. The first message is a question from the user: "What are some of the acronyms associated with English language teaching mentioned in the article?" The response is: "The article mentions acronyms such as ELT, TEFL, EFL, ELL, EAL, and ESOL, which are commonly used in English language teaching." The second message is a summary titled "文章重點整理" (Summary of Key Points), with the text: "這篇文章講述了不同文化如何慶祝過年，並介紹了他們的飲食、家庭聚會、遊行和儀式等傳統。作者分享了來自他們國家的個人經驗和傳統，例如吃魚和長麵條以求好運，與家人一起玩遊戲，以及進行紀念祖先的儀式。在馬來西亞，開放房屋是很受歡迎的，越南的單身女子會把柑橘扔進海裡，希望找到一個好丈夫。紅色被認為是幸運的顏色，孩子們會收到紅色的信封和錢。文章還建議過年期間不要剪長麵條，不要在新年前幾天打掃房子，也不要年初理髮。文章還提供英語教學中常用縮略語的詞彙表，旨在為英語學習者提供學習資源。閱讀理解問題檢查學生對文本的理解，寫作理解問題鼓勵學生反思自己的經驗和想法。整篇文章突出了與慶祝農曆新年相關的豐富文化多樣性和傳統。" Below the summary, there is a note: "文章重點整理：本文介紹了不同文化如何慶祝過年，飲食、家庭聚會、遊行和儀式等方面。文章還提到一些特殊習俗和傳統，例如在家人和一起吃團圓飯，吃魚和長麵條以求好運等等。紅色是這個節日中最常見的顏色，孩子們會收到紅色的信封和錢。在馬來西亞，開放房屋是一個流行的習俗，在越南，單身女子會把柑橘扔進海裡希望尋找好丈夫。文章還提供了一些注意事項，例如：不要剪長麵條、不要在新年前幾天打掃房子、不要在年初理髮。本文旨在讓英語學習者了解農曆新年的習俗和文化傳統，並反思自己的經驗和想法。"

總結：突破 ChatGPT 輸入限制的文件分析器

ChatDOC 是一個免費的 AI 文件分析神器，支援多國語言 PDF 文件分析，並結合 ChatGPT 技術，能夠回答使用者的問題。使用者只需要上載 PDF 文件到 ChatDOC，它會進行文件分析，然後使用者就可以向它提問，無需擔心文件長度和數量的限制。目前 ChatDOC 的限制是 PDF 文件頁數上限為 200 頁，每個檔案容量上限為 36MB，使用限制為 24 小時內最多上載 2 份文件檔，文件庫上限為最多儲存 30 份文件。

- 服務名稱：ChatDOC
- [官方網站](#)

ChatDOC

Search file name.

PDF aa8bcf9b-9aa9-4c25-833...
⌚ 2023-11-12 09:43:33

PDF LSP_T3_Program_2018.pdf
⌚ 2023-11-12 09:39:40

[SAMPLE] Collection
3 files

PDF [SAMPLE] ChatDOC_User_...
⌚ 2023-11-01 16:25:32

PDF [SAMPLE] AMIA_2023_Cha...
⌚ 2023-11-01 16:25:32

PDF [SAMPLE] Towards_Multi-...
⌚ 2023-11-01 16:25:32

PDF [SAMPLE] Alice_s_Advent...
⌚ 2023-11-01 16:25:32

No more.

- Auto Fit ▾ + < 1 / 17 > | fx Beta

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aa8bcf9b-9aa9-4c25-8332-a280eb6a328a.pdf

Abstract:

The main topic of the document is the United Nations' Sustainable Development Goals (SDGs) and the "Go Goals!" game designed to educate and engage children in pursuing these goals. The document emphasizes the importance of younger generations being key players in building a better future for the planet. The SDGs are 17 global targets that the Member States of the United Nations have agreed to achieve by 2030. The "Go Goals!" game is designed for children aged 8-10 and aims to inform them about the SDGs while motivating them to actively pursue them. The document highlights the role of educators in helping to achieve these goals and encourages them to download and use the game as

Recommend Custom

1. What is the purpose of the "Go Goals!" game? →
2. Who is the target audience for the "Go Goals!" game? →
3. What role is the article suggesting educators play in achieving the Sustainable Development Goals? →
4. Who created and designed the "Go Goals!" game? →

Type a question or type "/" to select a prompt.

Output in 繁體中文 Stick to file ⚡

- aa8bcf9b-9aa9-4c25-8332-a280eb6a328a.pdf
- Abstract:
- The main topic of the document is the United Nations' Sustainable Development Goals (SDGs) and the "Go Goals!" game designed to educate and engage children in pursuing these goals. The document emphasizes the importance of younger generations being key players in building a better future for the planet. The SDGs are 17 global targets that the Member States of the United Nations have agreed to achieve by 2030. The "Go Goals!" game is designed for children aged 8-10 and aims to inform them about the SDGs while motivating them to actively pursue them. The document highlights the role of educators in helping to achieve these goals and encourages them to download and use the game as an educational tool. It also provides information on how to stay involved, such as registering for updates, providing feedback, and spreading awareness on social media. In addition, the document includes a table of contents that lists different topics related to the SDGs, such as poverty, education, renewable energy, hunger, and health. Overall, the document focuses on promoting awareness and understanding of the SDGs and encouraging active participation in achieving them.

Recommend:

What is the purpose of the "Go Goals!" game?

Who is the target audience for the "Go Goals!" game?

What role is the article suggesting educators play in achieving the Sustainable Development Goals?

Who created and designed the "Go Goals!" game?

How many Sustainable Development Goals are there and by what year are they supposed to be achieved?

ChatDOC

Search file name.

aa8bcf9b-9aa9-4c25-833...
① 2023-11-12 09:43:33

LSP_T3_Program_2018.pdf
① 2023-11-12 09:39:40

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① 2023-11-01 16:25:32

[SAMPLE] Alice_s_Advent...
① 2023-11-01 16:25:32

No more.

Auto Fit | 1 / 17 | Beta

What role is the article suggesting educators play in achieving the Sustainable Development Goals?
2023-11-12 09:47:18

這篇文章建議教育工作者在實現可持續發展目標方面扮演怎樣的角色呢？文章中強調教育工作者在幫助實現這些目標方面起著關鍵作用。他們被鼓勵下載和使用這個遊戲作為教學工具，通過他們的幫助，以及他們的家人、朋友和社區的支持，我們將能夠實現這些目標。文章還提到，教育工作者應該在社交媒体上宣傳這個遊戲，以便傳播意識。總的來說，這篇文章強調了教育工作者在提高對可持續發展目標的認識和理解，並鼓勵積極參與實現這些目標方面的積極作用。

1 2 3 4 5 6 9 14 15 10 Follow up

Dear friend!

Our aim is to help people understand their role in the future of the planet as individuals, team players and most importantly, as responsible global citizens.

In order to build a better world for everyone and the planet, the Member States of the United Nations have agreed to do their utmost to achieve 17 Sustainable Development Goals (SDGs) by 2030.

We need younger generations to be key players for a brighter future. For this purpose we have created the "Go Goals" game for children aged 8-10. Designed to be fun and engaging, this game informs children while motivating them to actively pursue the SDGs.

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2023-11-12 09:43:33

PDF LSP_T3_Program_2018.pdf
2023-11-12 09:39:40

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[SAMPLE] Towards_Multi-...
2023-11-01 16:25:32

[SAMPLE] Alice_s_Advent...
2023-11-01 16:25:32

No more.

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Playing and building the future
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1 2 3 4 5 6 9 14 15 10 Follow up

吳 What role is the article suggesting educators play in achieving the Sustainable Development Goals?
2023-11-12 09:49:12

The article suggests that educators play a crucial role in achieving the Sustainable Development Goals. It states that with the help of educators, along with families, friends, and communities, the goals can be achieved. Educators are encouraged to download and use the "Go Goals!" game as an educational tool to inform children about the SDGs and motivate them to actively pursue them. By engaging children in pursuing the SDGs, educators can contribute to building a better future for the planet.

1 2 3 4 5 6 9 14 15 10 12 13 Follow up

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Hello! I am delighted to present our guide on data storytelling with the design thinking methodology. Here are three questions you might have about this file:

- How can I use the design thinking method to understand my users' needs?
- How can I create interactive data stories with storyboards?
- How can I use the affinity diagram to discover relationships and hierarchies in my data?

(1) 自動生成對話式引導文字

(2) 對 AI 提問

How can I use the design thinking method to understand my users' needs?

Great question! Our guide provides a four-step process for defining user requirements using the design thinking method. The steps are:

1. Identify Data Sets
2. Group the Data
3. Prioritize Data
4. Sequence the Data

By following these steps, you can gain a deeper understanding of your users' needs and create data stories that are tailored to their specific requirements. You can find more information on this topic on page 3 of our guide.

(3) AI 紿的回覆 可持續追問

如何對數據做分組？

可以改用
中文提問

非常好的問題！以下是如何對數據進行分組的簡要說明：

1. 收集您要分組的所有數據。
2. 仔細查看每個數據點，並找出它們之間的相似之處。
3. 將相似的數據點放在一起，形成一個群組。
4. 給每個群組命名，以便您可以輕鬆地識別和引用它們。

通過對數據進行分組，您可以更好地理解它們之間的關係，並為創建有意義的數據故事打下基礎。如果您需要更詳細的信息，請參閱我們指南中第3頁有關此主題的部分。

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NASA's new AI-designed parts look like they're from an alien starship

These tangles of metal can make NASA's spaceships and equipment lighter and more efficient.



[Source Images: NASA]

任職於 NASA 的工程師 Ryan McClelland 透過提示工程 (Prompt Engineering) 在 AI 中輸入指令，並且讓生成式 AI 藉由這些指令範疇所設定的界線提出創新設計。

他發現 AI 設計出來的零件成品看起來很像「外星人」，成功的讓整體零件重量減輕三分之一並且維持所需的性能。發射到太空的成本十分昂貴，因此重量、性能、體積的表現越好，越有可能讓任務得以順利進行。



Walmart 的供應商偏好和 AI 聊天機器人討價還價



<https://chinese.engadget.com/walmarts-suppliers-would-rather-negotiate-with-ai-than-a-human-100047201.html>

聊天機器人可不是只能用來寫詩寫程式而已，美國大零售商 Walmart 就想到了用它來和供應商討價還價，協商一個有利的購買價。據 [Bloomberg 報導](#)，這個名為「Pactum AI」的聊天機器人可以自動和供應商議價，它不僅讓 Walmart 平均可以多省下 3% 的開銷，而且每四個供應商中就有三個偏好與 AI 討價還價，而非人類。

要特別注意的是，Pactum AI 目前只是被 Walmart 用來購買公司自身的物品，像是賣場的推車或是辦公室的消耗品等，架上販售的商品還是由人類在議價。Walmart 只要告訴 Pactum 想要購買的產品規格、預算與付款條件等資訊，Pactum 就能自動比較供貨商的需求、價格趨勢、以及其他競品的價格等，再以這些資訊去和供貨商議價。一般來說 AI 可以將協商時間由數週甚至數月縮短到數天，並提高雙方對最後價格的滿意度。Walmart 最早是在加拿大試用 Pactum，後來並推廣到美國、智利和南非。

由於 Pactum 並非用來協商架上販賣的貨品，因此對於 Walmart 來說，這主要是減輕員工的負擔，讓員工不用花時間在一些固定，或是沒什麼討價還價空間的物品，而非取代員工的工作。不過，將 Pactum 擴大使用的範圍並不是難事，未來如果出現 AI 與 AI 間的自動議價，還有可能會再進一步節省時間與開銷。就算短時間內還是要靠人類來建立關係並且決定如何達到雙贏，在未來很難說會不會 AI 做的更好呢？

音樂版 ChatGPT 來了！Google AI 音樂生成器 MusicLM 開放註冊使用

<https://www.inside.com.tw/article/31592-google-text-to-music-ai-MusicLM-public>



音樂版 ChatGPT 來了！Google AI 音樂生成器 MusicLM 開放註冊使用

<https://aitestkitchen.withgoogle.com/experiments/music-lm>



[How to try MusicLM from Google's AI Test Kitchen \(blog.google\)](#)

<https://www.inside.com.tw/article/31592-google-text-to-music-ai-MusicLM-public>

稍早 Google 舉辦 2023 年 I/O 大會上發表了全新大型語言模型 PaLM 2，不只將各項 AI 導入 Google WorkSpace 齊發，也升級了 Bard。

今年一月份 Google 發表實驗性 AI 工具 MusicLM 現在也正式登場，即起可在 Web、Android 或 iOS 上的 AI Test Kitchen 中註冊登記試用。

只要輸入提示詞（prompt），例如輸入「晚宴上深情的爵士樂」之類的提示，MusicLM 就會自動幫你創作出兩個版本的曲目。

把兩首都聽一遍以後，你可以選擇一首較喜歡的曲目頒發獎。使用者可以指定樂器、音樂類型像是電子、古典樂或是想要的氛圍、情緒等作為提示，這些文本也能幫助改善模型。

事實上 Google 在 1 月份於學術論文中預覽 MusicLM 時並表示沒有立即計劃發表。該論文的合著者指出了像 MusicLM 這樣的系統帶來倫理的挑戰，包括將訓練數據中受版權保護的素材整合到生成的歌曲中的問題等等。

隨著過去幾個月，Google 持續與音樂專家合作舉辦研討會。了解其工具如何更好為創作者提供助力，目前 [AI Test Kitchen](#) 中的 MusicLM 版本不會生成具有特定藝術家或人聲的音樂。

不過即便如此，生成式 AI 的版權議題仍是許多創作者所關心，美國音樂出版協會的埃里克·桑雷 (Eric Sunray) 撰寫的一份白皮書就提到，像是 MusicLM 這樣的 AI 音樂生成器有侵犯版權問題，原因是 AI 生成音樂在使用原曲時的一致性會違反複製權。

先前新創公司 Boomy 在 Spotify 上架的人工智慧生成歌曲在受到在環球音樂集團投訴後，也遭到 Spotify 官方刪除，從繪圖設計到音樂，AI 生成在藝術領域還有很長一段路要走。

[How to try MusicLM from Google's AI Test Kitchen \(blog.google\)](#)

《2023 年創作者 AI 趨勢調查》 品牌如何面對網紅 產業革新？

Partipost 團隊

<https://partipost.com/tw/2023/05/04/partipost-ai-report/>

CONTENTS



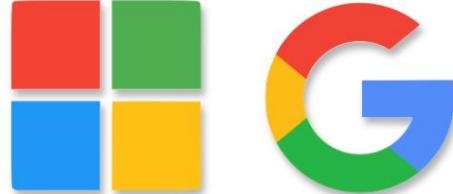
Partipost 團隊彙整數百筆調查數據資料，探討與分析 2023 年 AI 與網紅行銷生態的關係與影響。本次報告共分為五大單元，深入分析運用 AI 技術來為品牌帶來更多的機會和發展空間。

1. **AI 掀起的創作產業革命**
AI 頑覆傳統想象力，加速驅動內容創造力
2. **品牌如何面對網紅產業革新？**
行銷人對於 AI 加入後的協作市場調查
3. **創作者如何與 AI 協作？**
創作者對 AI 使用方式的觀察與剖析
4. **品牌與 AI 協作的四大架構**
獨立型、協助型、拓展型、取代型四大分類說明
5. **如何與 AI 協作共生？**
行銷 X 創作者 X AI 如何三贏創造更多可能

Gmail 創始人 Paul Buchheit 預測 ChatGPT 將改變人們的搜尋習慣，因為 AI 的加入使得雲端服務具備更高的價值。千篇一律、缺乏創意的內容將會加速消逝。數位廣告也面臨更大挑戰，其紅利減少，無法滿足未來的使用需求。

Snap. Post. Earn

◆ 由 ChatGPT 引發的搜尋引擎大戰



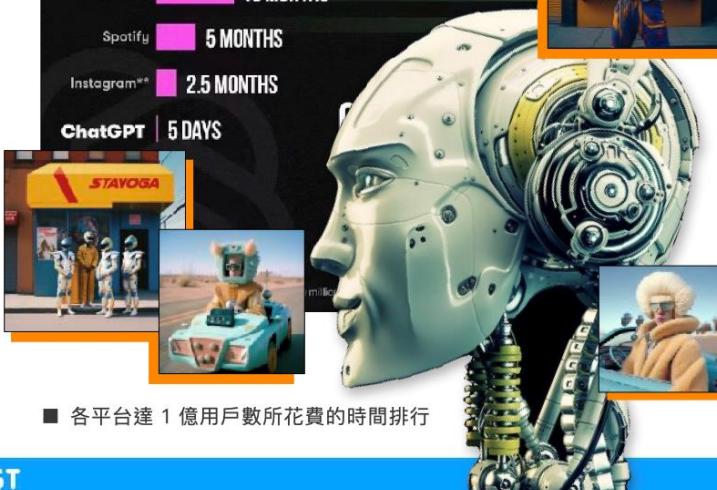
 Paul Buchheit @paultoo

Google may be only a year or two away from total disruption. AI will eliminate the Search Engine Result Page, which is where they make most of their money.

Even if they catch up on AI, they can't fully deploy it without destroying the most valuable part of their business!

■ Gmail 創始人 [Paul Buchheit](#) 預測 ChatGPT 將翻轉大眾搜尋的習慣

◆ 2023 年生成式 AI 是貼近生活的助手



■ 各平台達 1 億用戶數所花費的時間排行

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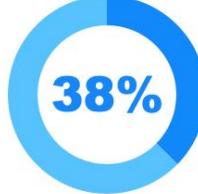
PARTIPOST

<https://partipost.com/tw/2023/05/04/partipost-ai-report/>

未來，品牌對 AI 的應用不再局限於「搜尋」和「提供建議」，而是能更進一步的規劃建議，並應用於創意內容的生成，帶來更多創新的可能性。

Snap. Post. Earn

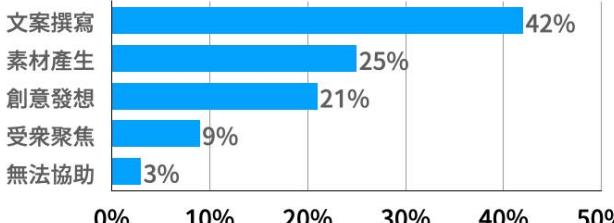
◆ 2023 年品牌行銷是否使用 AI 參與協作



● 38%	是，已經開始使用
● 62%	否，尚未開始使用

■ 數據來源：Influencer marketing hub 2023 AI 趨勢報告

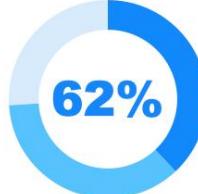
◆ AI 如何協作社群內容產出



文案撰寫	42%
素材產生	25%
創意發想	21%
受眾聚焦	9%
無法協助	3%

■ 數據來源：2023 Partipost 年度調查

◆ 是否看好 AI 協作後的創作內容



● 38%	否，仍希望是原創真實的作品
● 36%	是，但須註明是 AI 協作
● 26%	是，但內容需保有良好品質

} 62%

■ 數據來源：2023 Partipost 年度調查



■ 《倒牛奶的女僕》利用 AI 技術創造延伸原有的圖像。

巴黎奧美與雀巢旗下品牌 La Laitière 合作

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Snap. Post. Earn

◆ AI 成創作者跨界的全新契機



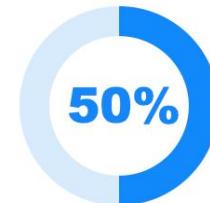
■ 日本首部「AI 繪製漫畫」問世，善用 Midjourney 生成式工具 6 週完成百頁上稿

■ 知名虛擬 YouTuber 「Rui」

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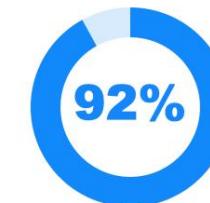
PARTIPOST

◆ 網紅 / 創作者嘗試新社群渠道的看法



- 50% 想嘗試跨足多社群平台
- 50% 專心經營單一社群平台

◆ 創作者是否介意 AI 協作生成內容



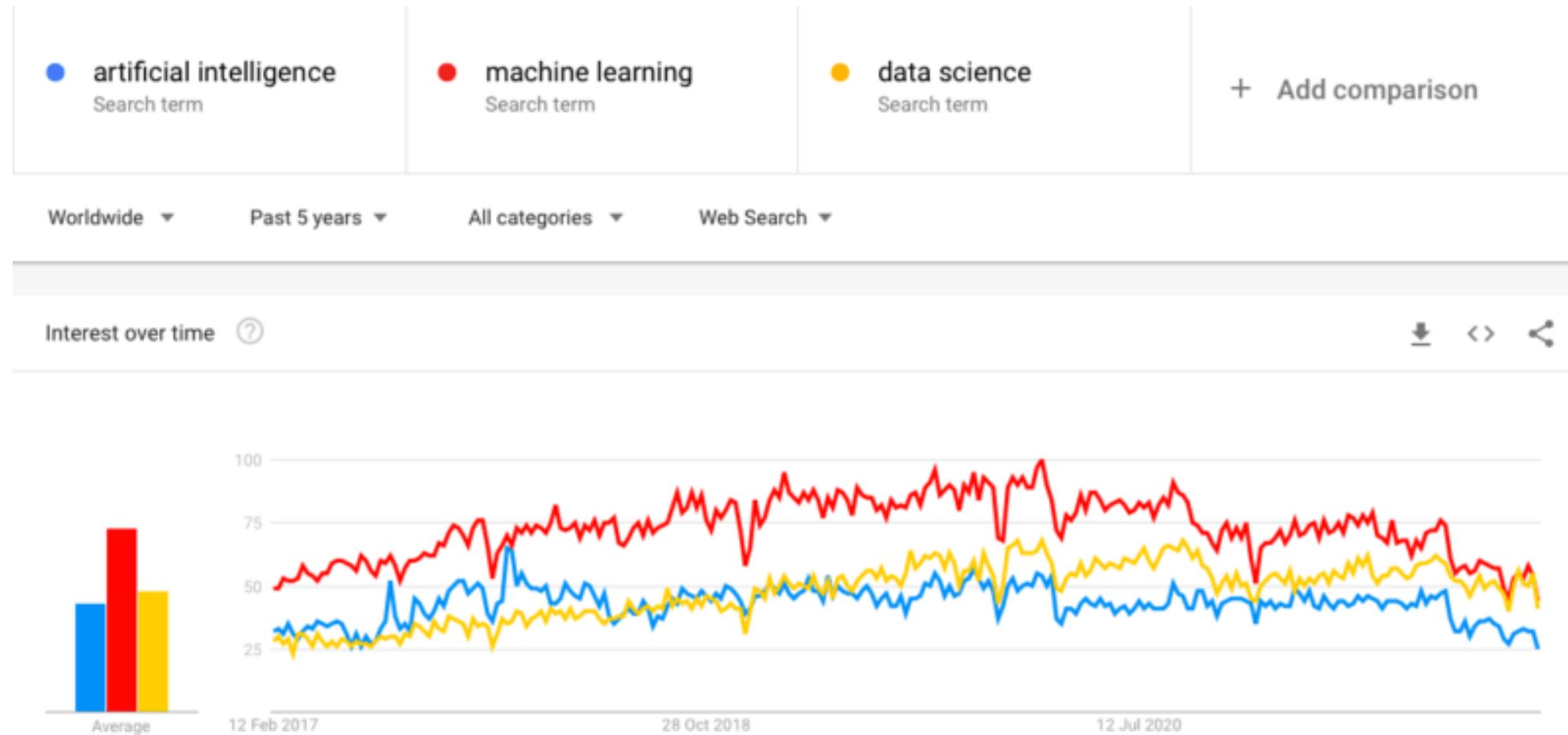
- 92%
- 8%



「不要問電腦可以做什麼，而是問它可以為你做什麼。」

– Apple 聯合創辦人 Steve Jobs

■ 數據來源：2023 Partipost 年度調查



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Tech Accelerator A guide to artificial intelligence in the enterprise ◀ PREV | NEXT ▶

TIP

10 top AI and machine learning trends for 2023

Multi-modal learning, ChatGPT, the industrial metaverse -- learn about the top trends in AI for 2023 and how they promise to transform how business gets done.

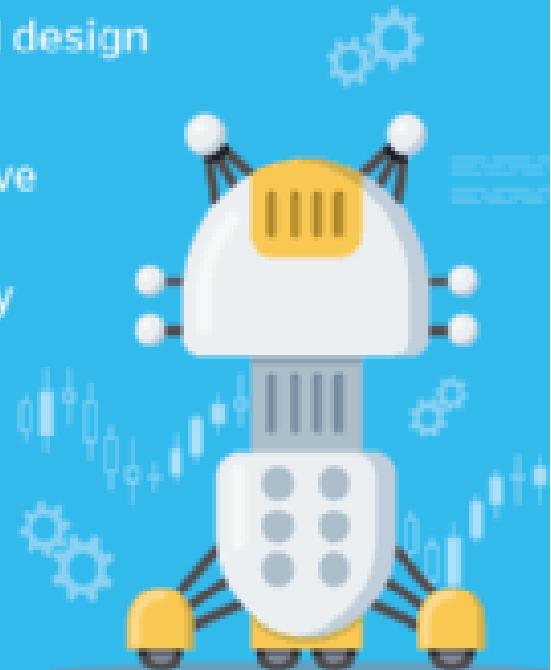
By George Lawton Published: 07 Mar 2023

f  What is the current state of AI? Artificial intelligence technologies are transforming business processes and society at large. What are the AI trends in 2023 that enterprises should be paying attention to?

in Success stories focus on the achievements and evolution of the algorithms. [ChatGPT](#) is a new AI

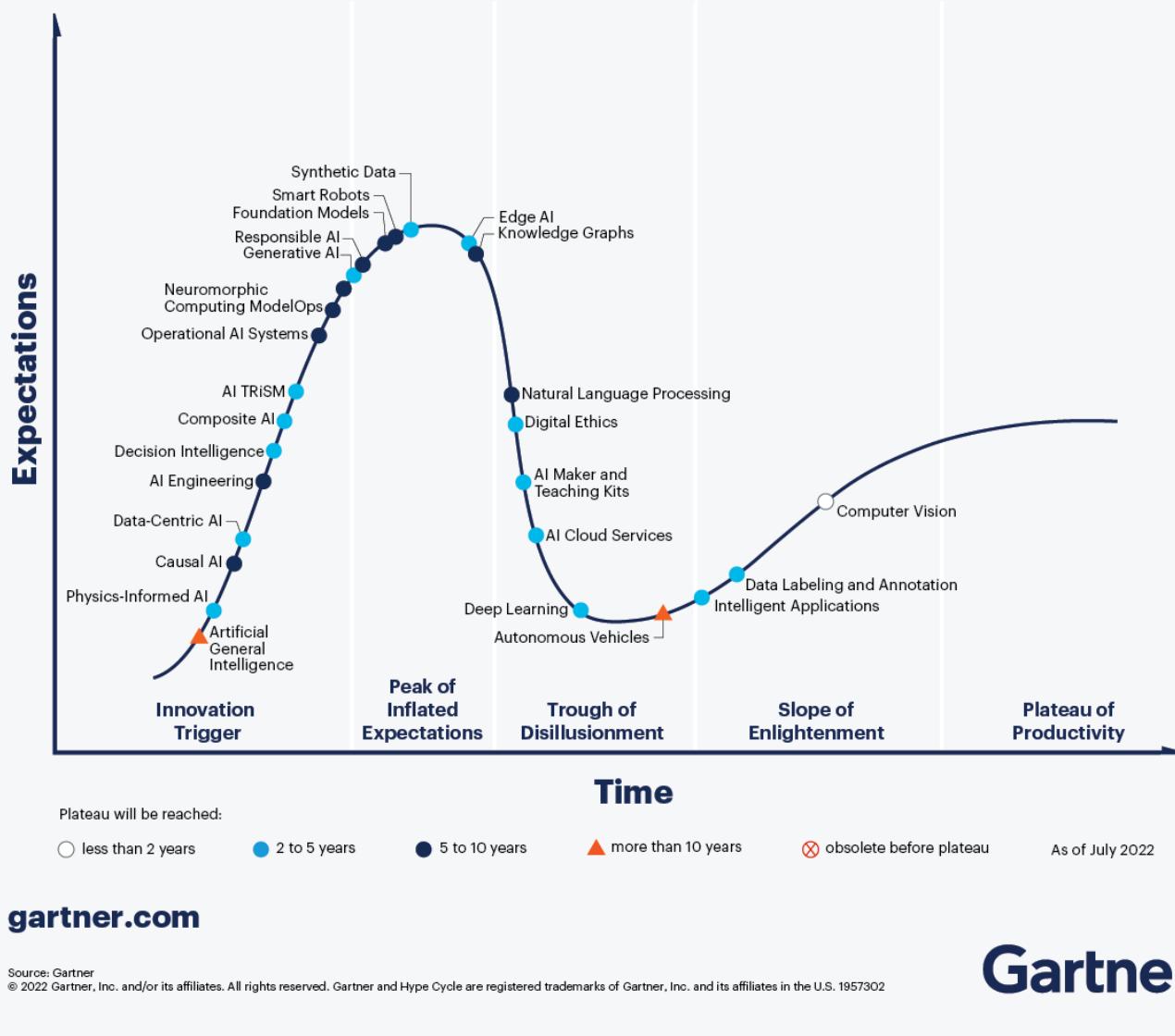
2023 AI and machine learning trends

- Automated machine learning (AutoML)
- AI-enabled conceptual design
- Multi-modal learning
- Models that can achieve multiple objectives
- AI-based cybersecurity
- Improved language modeling
- Computer vision use cases increase
- Democratized AI
- Bias removal in ML
- Digital twins in the industrial metaverse



ARTICLE BY GEORGE LAWTON STAFF WRITER FROM TARGET. ALL RIGHTS RESERVED

Hype Cycle for Artificial Intelligence, 2022



<https://www.gartner.com/en/articles/what-s-new-in-artificial-intelligence-from-the-2022-gartner-hype-cycle>

Top Strategic Technology Trends 2023

- 
- 1 Digital Immune System
 - 2 Applied Observability
 - 3 AI TRiSM
 - 4 Industry Cloud Platforms
 - 5 Platform Engineering
 - 6 Wireless-Value Realization
 - 7 Superapps
 - 8 Adaptive AI
 - 9 Metaverse
 - 10 Sustainable Technology

gartner.com

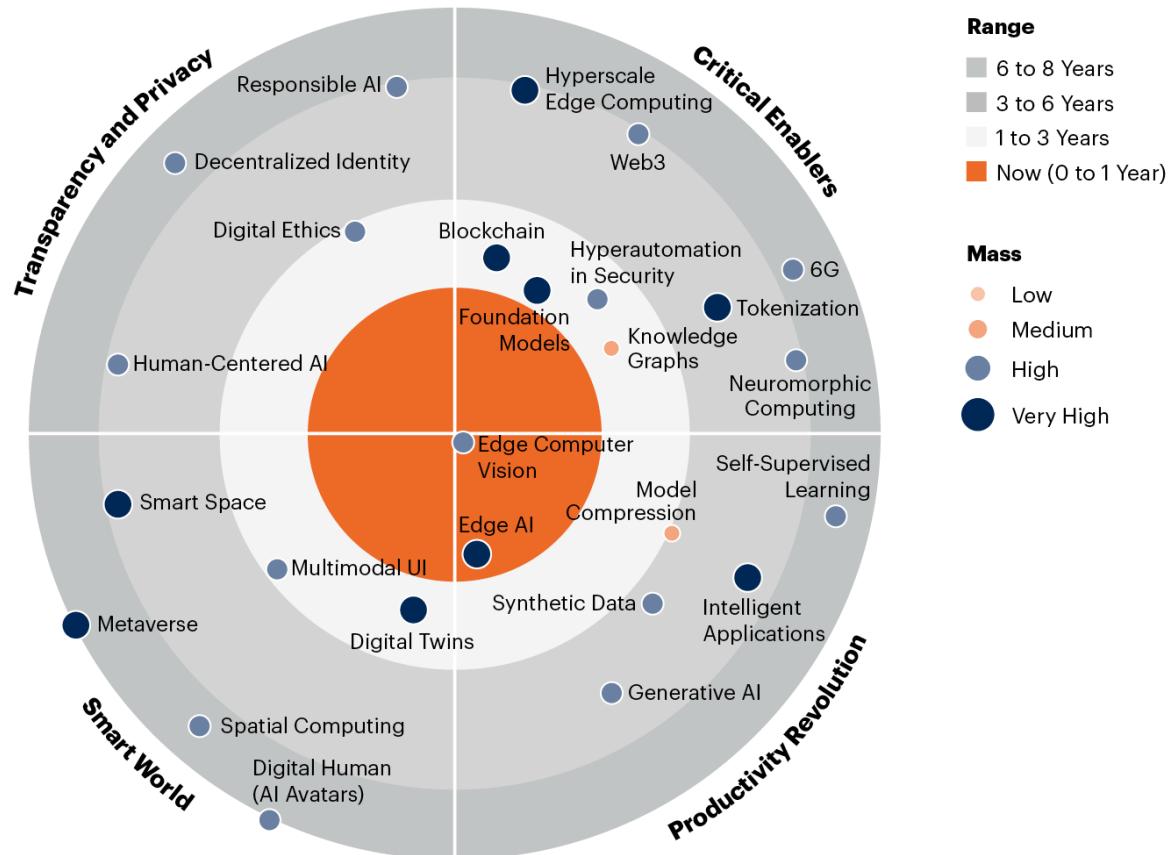
Source: Gartner
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Gartner®

1. 數位免疫系統 (Digital Immune System)
2. 可觀測性應用 (Applied Observability)
3. AI 信任、風險和安全管理 (Trust, Risk and Security Management)
4. 產業雲平台 (Industry Cloud Platforms)
5. 平台工程 (Platform Engineering)
6. 無線技術價值實現 (Wireless Value Realization)
7. 超級應用 (Superapps)
8. 自適應 AI (Adaptive AI)
9. 元宇宙 (Metaverse)
10. 可持續性 (Sustainability)

在 CIO Taiwan 官網閱讀全文：
Gartner 研究報告 - 2023 戰略科技趨勢
<https://www.cio.com.tw/gartner-research-report-2023-strategic-technology-trends/>

2023 Gartner Emerging Technologies and Trends Impact Radar



gartner.com

Note: Range measures number of years it will take the technology/trend to cross over from early adopter to early majority adoption. Mass indicates how substantial the impact of the technology or trend will be on existing products and markets.

Source: Gartner
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AI大未來



斯坦福大學:AI一百年研究 (AI100) - “AI與 2030 年的生活”

- 2030年AI成為人類活動的協作工具

“我們相信，到 2030 年，專業的AI應用將變得越來越普及且實用，從而改善我們的經濟和生活品質”

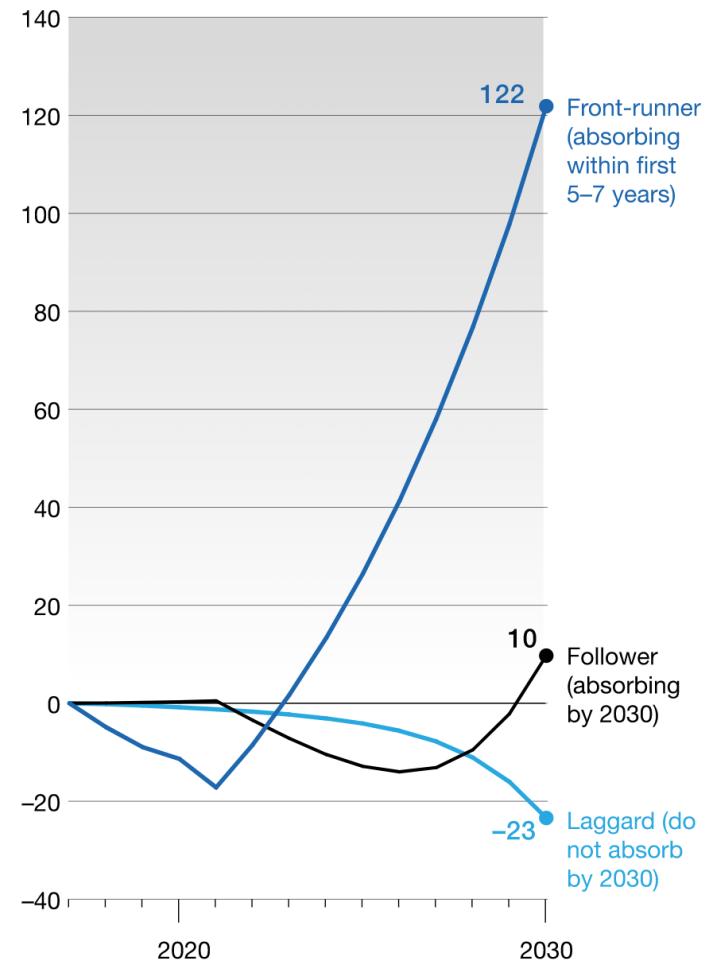
by 德克薩斯大學奧斯汀分校計算機科學家兼報告主席彼得斯通

麥肯錫全球研究院:

- 2030年約**70%的企業**將採用至少一種形式的AI技術，且大型企業的多數業務將採用更廣泛的AI
- 2030年AI將為全球經濟活動帶來額外**13兆美元產值**、逐年貢獻全球GDP額外1.2%的成長
- 2030 年**AI技術領先的公司**，**現金流量可能會增加一倍**。不採用AI技術的公司金流可能會比現在的水平下降 20% 左右

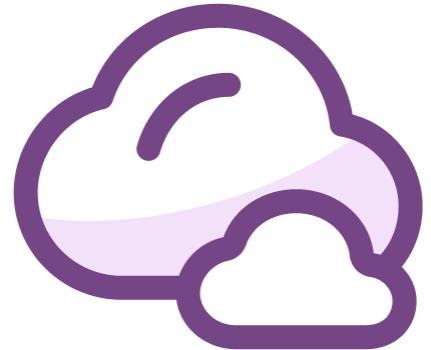
<https://iknow.stpi.narl.org.tw/Post/Read.aspx?PostID=18925>

Relative changes in cash flow by AI-adoption cohort, cumulative % change per cohort





VI. 人工智能挑戰與倫理



AI面臨的危機與挑戰？

① Start presenting to display the poll results on this slide.

- 可能涉及到的生成式人工智慧的13大類倫理法律社會議題：
- 1. 虛假訊息和缺乏真實性
- 2. 隱私和資料安全
- 3. 經濟和失業
- 4. 情感和美學
- 5. 偏見和歧視
- 6. 法律和權利
- 7. 治理和透明度
- 9. 醫療和生命倫理
- 10. 研究和學術
- 11. 學習和教育
- 12. 環境和永續性
- 13. 道德和價值觀

How to worry
wisely about
artificial
intelligence

The Economist

Fox News. Now what?
Ukraine's game plan
Why civil wars are lasting longer
A special report on the car industry

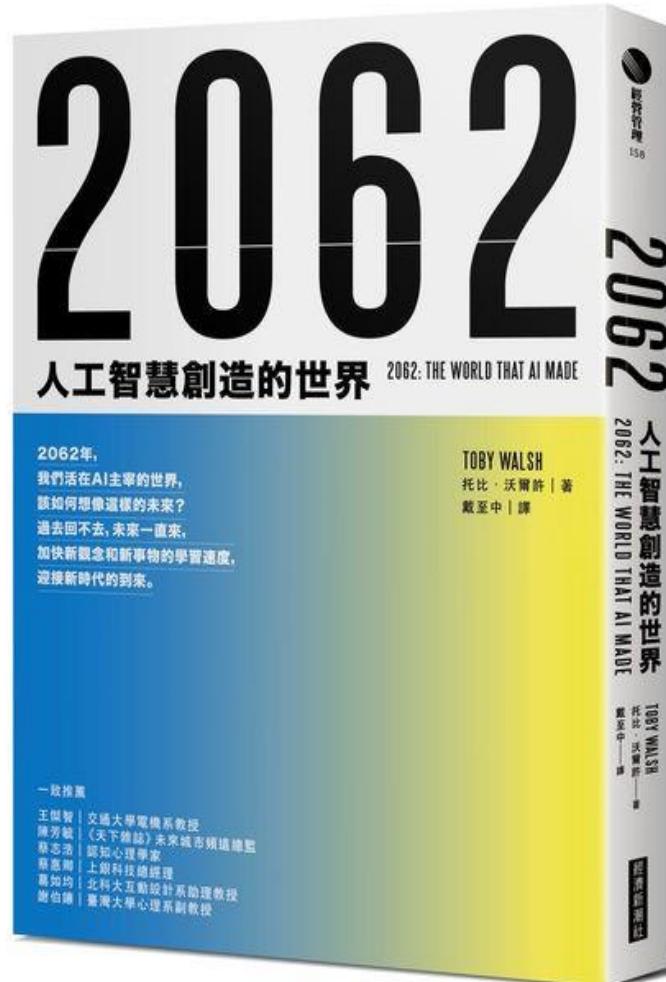
APRIL 22ND–28TH 2023



[https://www.economist.com/leaders/2023/04/20/
how-to-worry-wisely-about-artificial-intelligence](https://www.economist.com/leaders/2023/04/20/how-to-worry-wisely-about-artificial-intelligence)

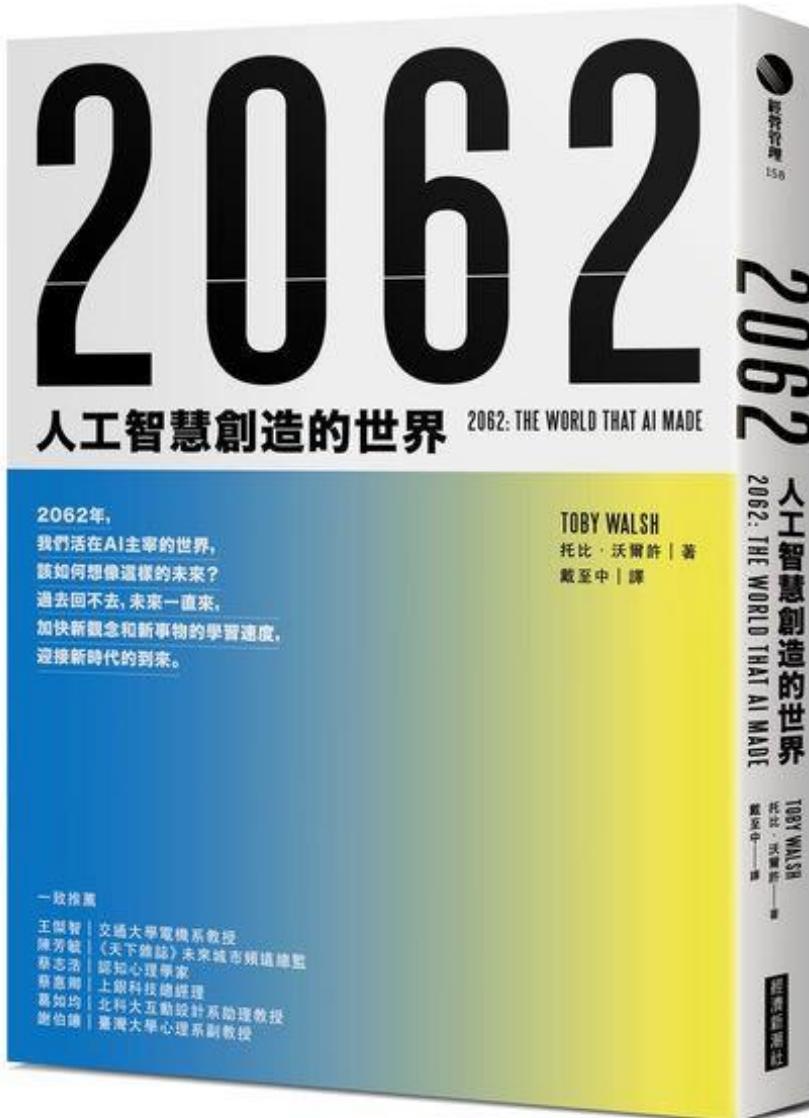
2062人工智慧創造的世界

- 作者：托比·沃爾許（Toby Walsh）
世界首屈一指的人工智慧專家之一，一輩子都在夢想和研究機器或可如何思考。
新南威爾斯大學的人工智慧科學講座教授/澳洲科學院的院士。大力提倡要設限，以確保人工智慧是用來改善而不是危害我們的生活。
- 出版社：經濟新潮社
- 出版日期：2019/11/02



2062人工智慧創造的世界

- 第一章 數位人
- 第二章 我們的末日
- 第三章 意識的末日
- 第四章 工作的末日
- 第五章 戰爭的末日
- 第六章 人類價值的末日
- 第七章 平等的末日
- 第八章 隱私的末日
- 第九章 政治的末日
- 第十章 西方的末日
- 第十一章 末日





2023.03.03 | AI與大數據

「不要太快行動！」推動AI顛覆大眾視野， DeepMind創辦人卻呼籲小心使用？

人工智能從根本顛覆人類生活的結構。但AI技術亦能覆舟，用於研發新藥的AI也能打造致命毒藥；聊天機器人可能在引導下充滿極端言論。

<https://www.bnnext.com.tw/article/74252/deepmind-mar-23-mag>

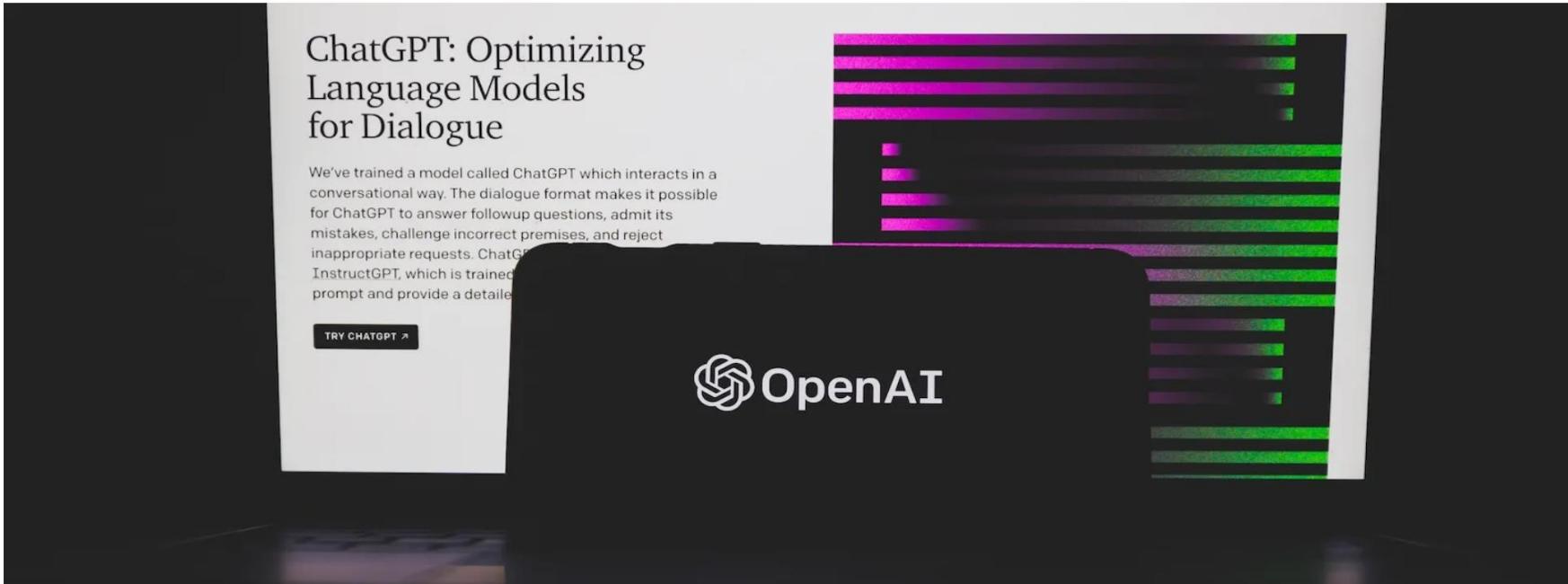
財經週報 ▶ 日圓還會繼續貶嗎？日本央行陷兩難

產業 > 科技

馬斯克的「暫停AI研發」公開信，有什麼問題？

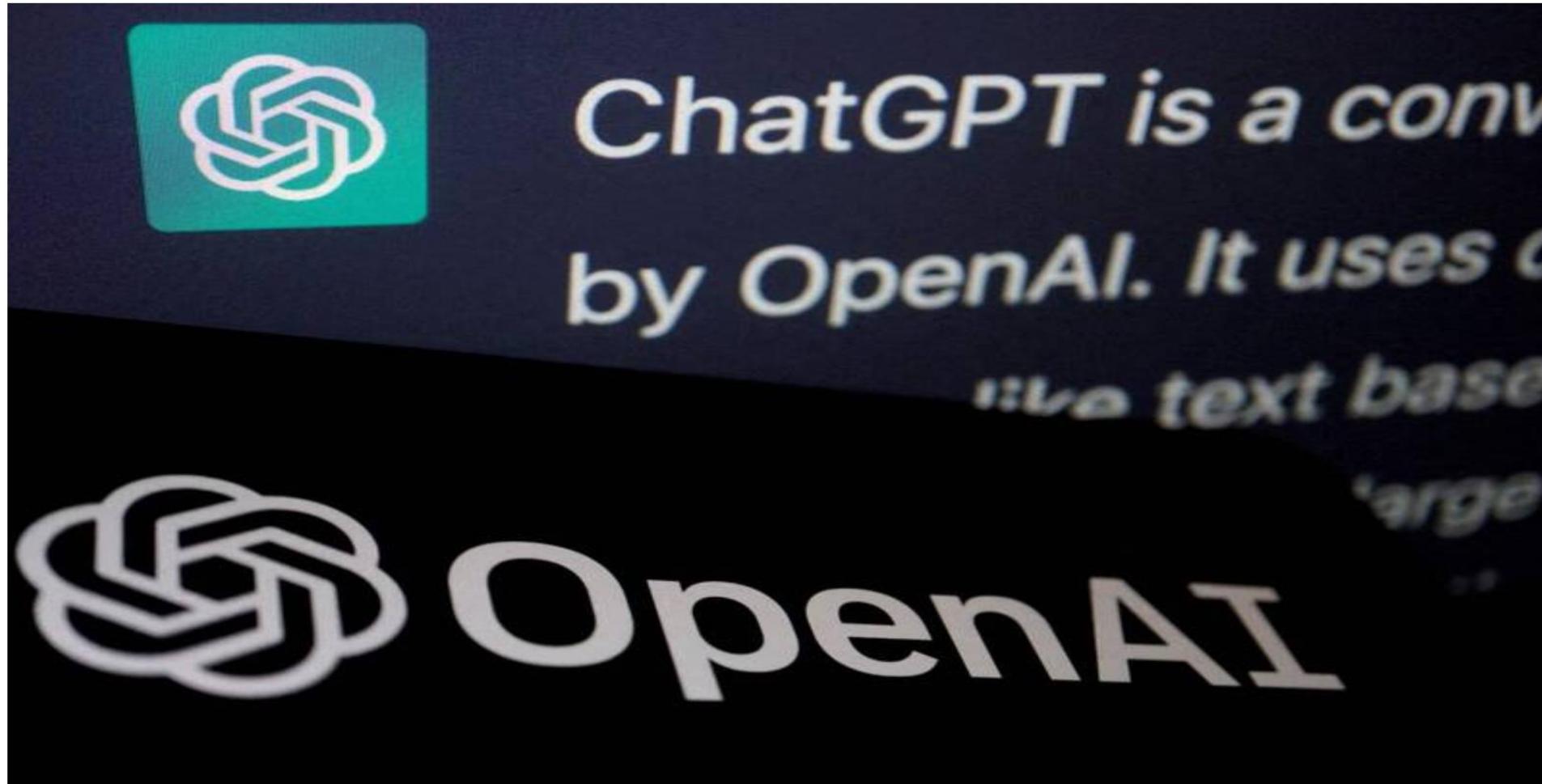
馬斯克與上千名科技、商業、科學領袖連署，暫停比GPT-4更進步的AI開發半年，引起爭議。公開信引述的論文作者跳出來反駁馬斯克「超譯」她的研究。目前，專家們就「必須監管AI」達成共識，問題是怎麼管，沒人有把握。

▶ 文章語音朗讀 · 07:43



- 包含馬斯克在內的1,300多名科技領袖和研究人員，發布了一封公開信，希望所有AI實驗室暫停各式先進的研發，因為AI工具可能「對社會和人類構成深遠的風險」。
- 這封公開信由非營利組織「未來生命研究所」（Future of Life Institute）發布。
- 簽署名單的華麗陣容，讓人不得不對這封公開信更慎重以待：蘋果聯合創辦人沃茲尼克（Steve Wozniak）、通常被稱為「AI教父之一的」班吉歐（Yoshua Bengio）、AI領域研究先驅羅素（Stuart Russell）和Stability AI執行長莫斯塔克（Emad Mostaque）等人都名列其上。
- 信中強力控訴：
- 「當代人工智慧系統現在在一般任務上，變得和人類一樣具有競爭力。我們必須擔心自問：是否應該讓機器用政治宣傳和謊言，充斥我們的各種資訊來源？我們應該將所有的工作自動化，包括那些令人有成就感的工作嗎？我們是否該發展最終可能超越我們、比我們聰明，並取代我們的非人類心智？我們應該冒著失去對文明控制的風險嗎？」
- 最後，這封信建議，應該暫停研發比GPT-4更進步的技術至少6個月。同時，AI開發人員必須共同開發一套「共享安全協議」，由外部專家嚴格審查；並應該與政策制定者合作，加快開發強大的「AI治理系統」。

美律師用ChatGPT寫訴狀 被抓包引述判例「攏係假」



美國紐約一名律師日前提交起訴文件，卻被法官發現文件中所引用的6起判例竟「完全不存在」，該律師才承認使用ChatGPT研究判例，且「沒有意識到內容可能是假的」。（路透資料照）

AI影像合成技術與假信息

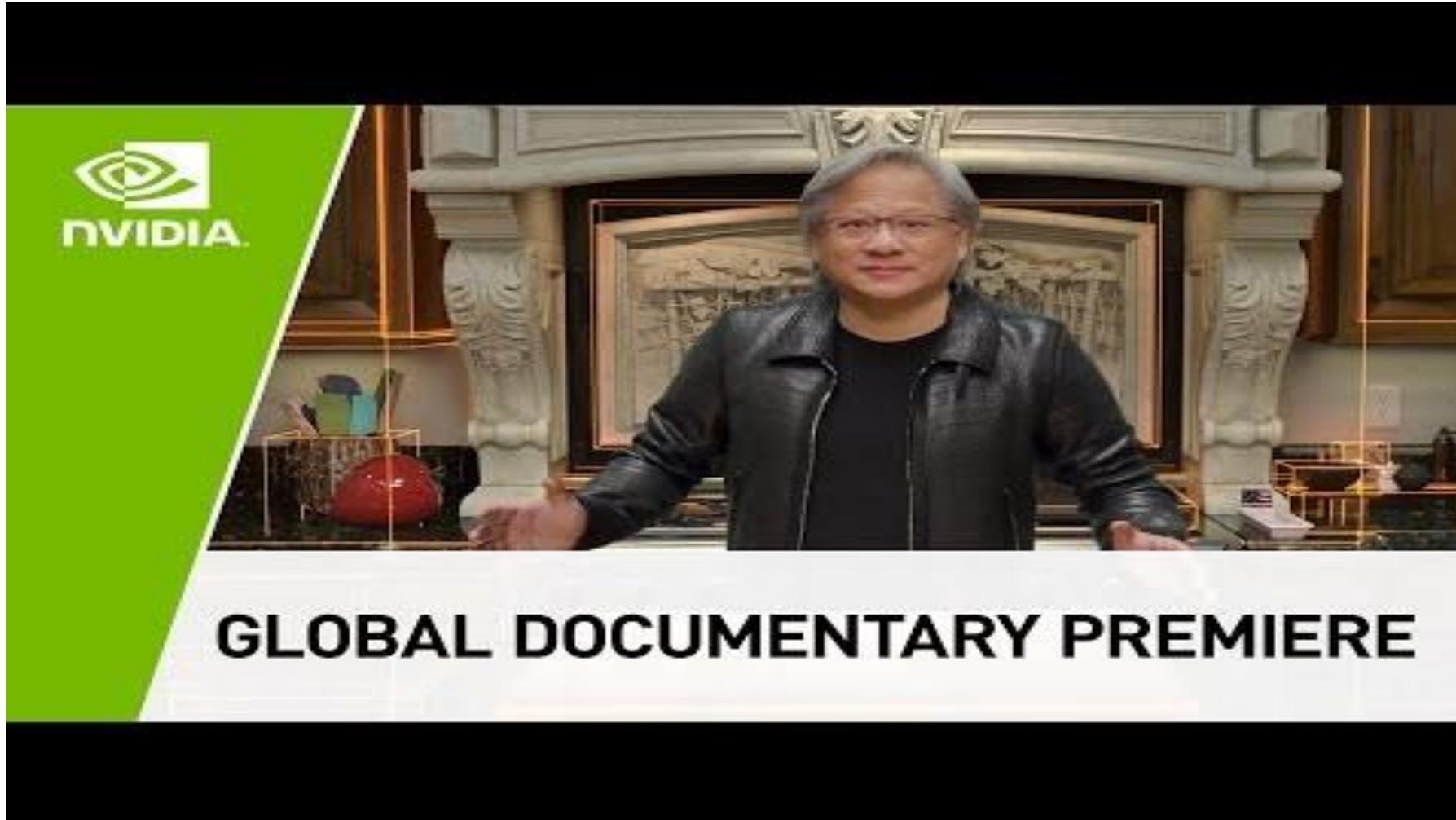
- deepfakes

- DEEPLARNING深度學習 + FAKE偽造 = 基於人工智慧的人體圖像合成技術的應用。
- 2018年，前美國總統奧巴馬的演講影片被國外媒體buzzfeed以AI技術改變嘴型、聲音與內容，在原始影片裡頭增添了一句『川普總統完全就是個笨蛋！』（圖片取自, Credit by [iTHome](#)）



You Won't Believe What Obama Says In This Video! 😊 BuzzFeedVideo

Nvidia揭露2021/4發表會「造假」 這14秒全球被騙得心服口服



- Deepfake
=deep learning (深度學習) + fake (偽造)

深度偽造

- 電腦視覺
教會電腦看懂世界
- 生物特徵識別
人臉/步態/手勢/脈搏/語者識別

電腦視覺

- 汚染訓練資料/建模過程
- 軍用無人機瞄準自己/路面貼紙騙無人車/面具騙人臉辨識
→加強建模安全/
自動檢查中毒

AI安全

AI 如何為公司創造更多價值？避免缺陷

優化AI系統的3方法

現行 AI 有很多不穩定性、偏見，張凱歲提供 3 種觀念，幫助經理人在導入 AI 前參考，確保 AI 做出最正確的決定。



Credit by 經理人 2021/05/13 採訪·撰文盧廷羲

<https://www.managertoday.com.tw/articles/view/62902>

[nature](#) > [correspondence](#) > article

CORRESPONDENCE | 14 February 2023

Ethics: disclose use of AI in scientific manuscripts



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COVID-19

Science

Image and Text Integrity

Plagiarism. Plagiarism is considered by the [US Office of Research Integrity](#) to “include both the theft or misappropriation of intellectual property and the substantial unattributed textual copying of another’s work.” Substantive re-use of text or figures previously published by a current author without appropriate citation is considered self-plagiarism. The *Science* journals use the [Crossref Similarity Check service](#) to detect plagiarism and follow guidelines from the Committee on Publication Ethics (COPE) in dealing with cases of suspected plagiarism.

Artificial intelligence (AI). Text generated from AI, machine learning, or similar algorithmic tools cannot be used in papers published in *Science* journals, nor can the accompanying figures, images, or graphics be the products of such tools, without explicit permission from the editors. In addition, an AI program cannot be an author of a *Science* journal paper. A violation of this policy constitutes scientific misconduct.

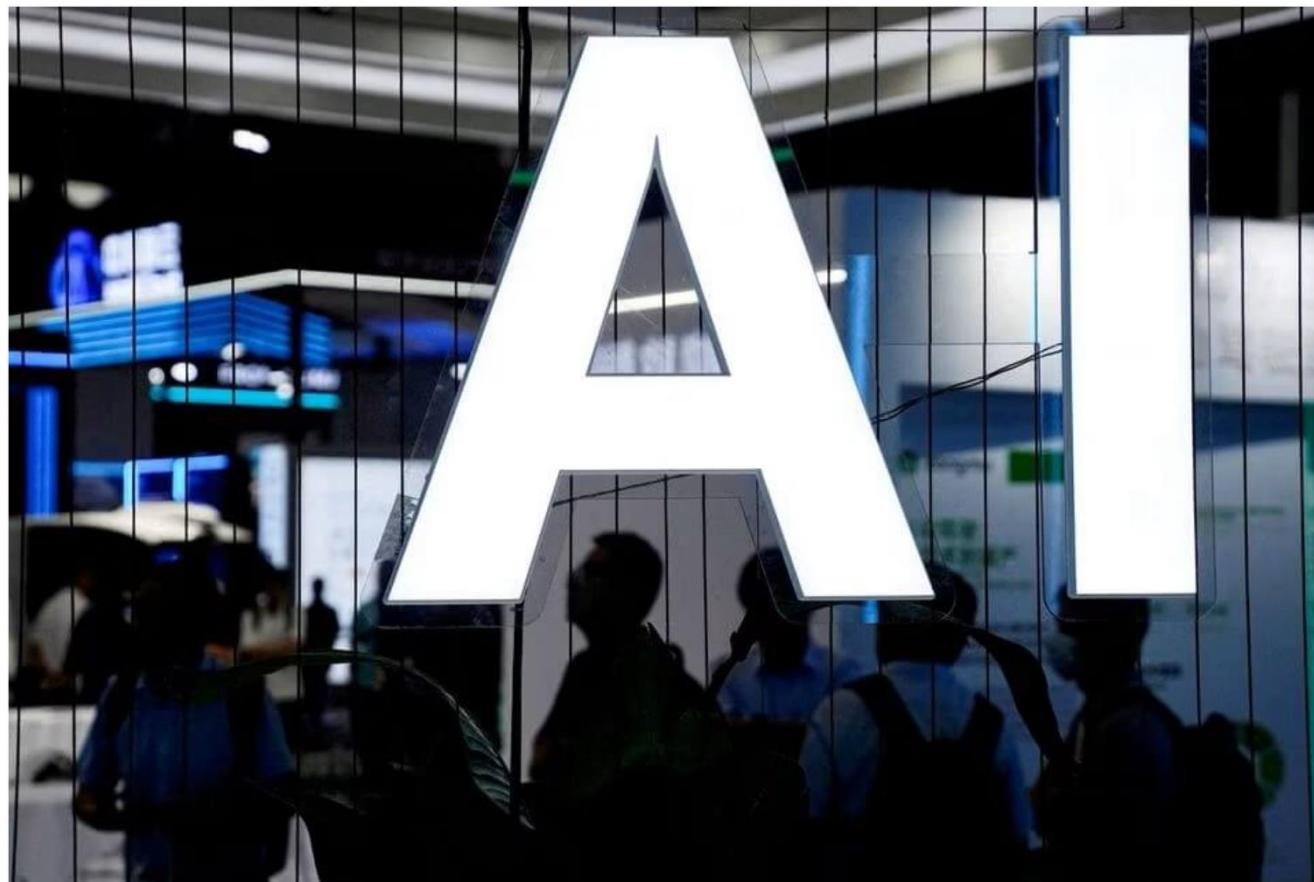
<https://www.nature.com/articles/d41586-023-00381-x>

<https://www.science.org/content/page/science-journals-editorial-policies#authorship>

<https://technews.tw/2023/02/02/science-and-nature-ban-ai-as-author-of-paper/>

美法官裁定AI藝術作品不受版權保護 人類才享有

2023/8/22 12:42 (9/1 09:38 更新)



美國華府一座法院裁定，由人工智慧（AI）創造且未使用任何人類資料的藝術作品，不得依美國法律獲得版權保護。（路透社）

電腦科學家塞勒（Stephen Thaler）代替他的DABUS系統申請版權註冊，但遭美國著作權局（Copyright Office）拒絕。

DABUS是「統一感知自動引導裝置」（Device for the Autonomous Bootstrapping of Unified Sentience）的縮寫。

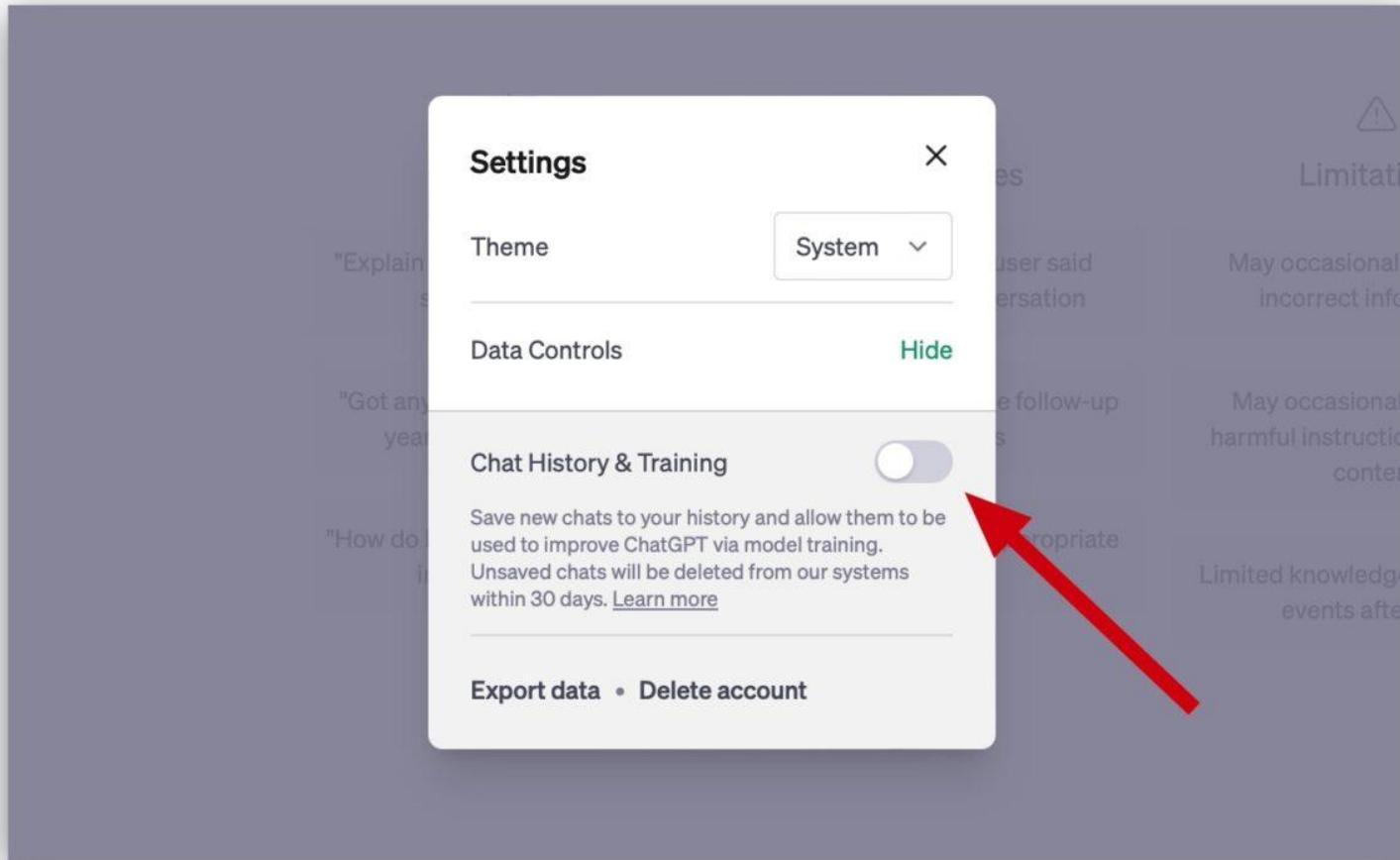
<https://www.cna.com.tw/news/aopl/202308220110.aspx>

怕了?! 三星宣佈員工禁用 ChatGPT 這類生成式 AI， 抓到重罰

<https://applealmond.com/posts/184820>

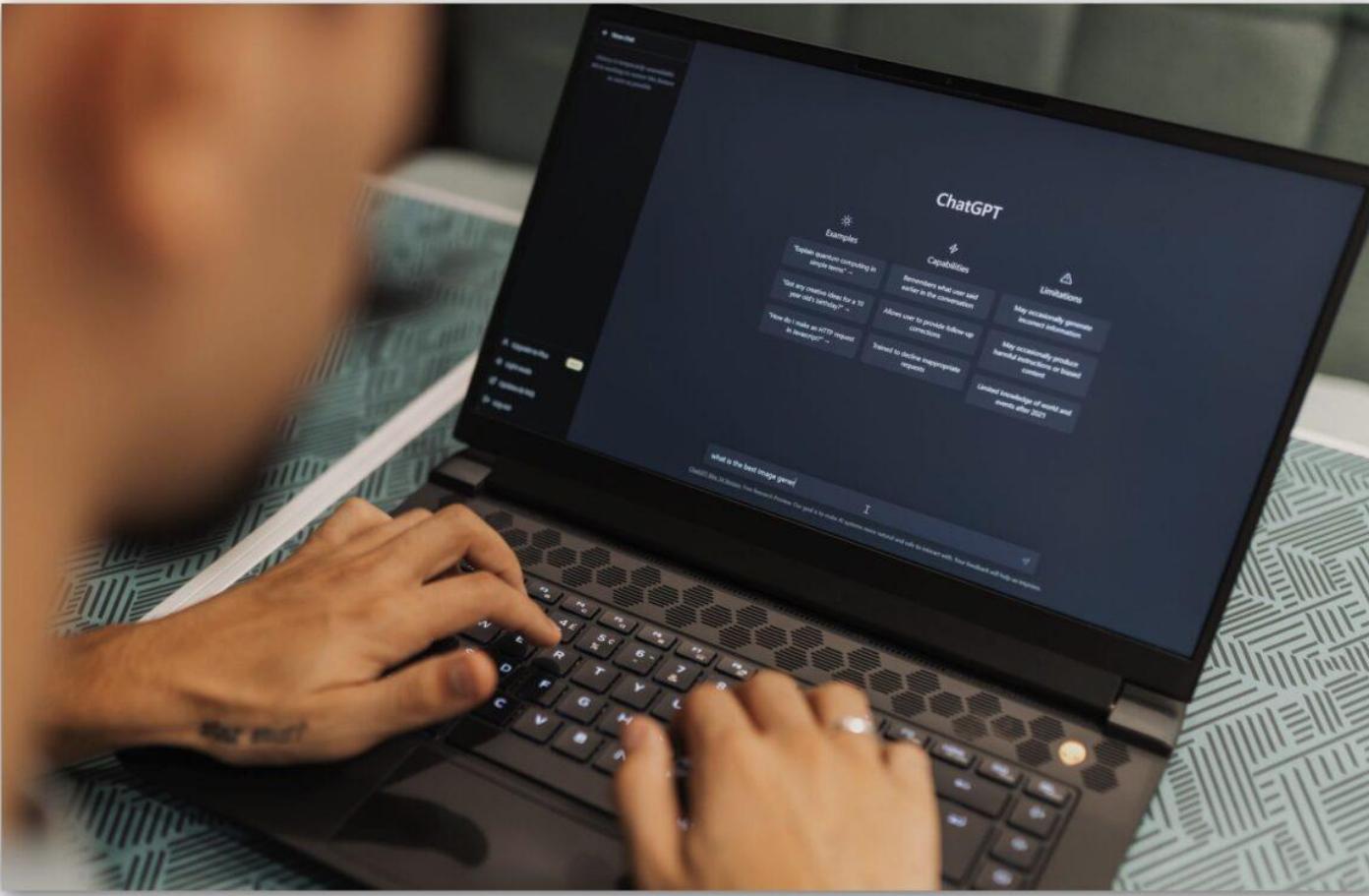


ChatGPT 資安疑慮引發 Samsung



<https://applealmond.com/posts/184820>

三星開發自家 AI 並頒布新規定，違者開除



<https://applealmond.com/posts/184820>

不只三星，多家企業也是對 AI 的資安保護也疑慮

事實上，三星並非唯一擔心 AI 技術帶來資安風險的大型企業。今年 2 月，ChatGPT 在科技業引起廣泛關注後，包括摩根大通、美國銀行和花旗銀行在內的華爾街銀行紛紛開始禁止或限制員工使用該 AI 工具。

這些企業除了擔憂資訊安全之外，也對侵犯隱私表示擔心。

延伸閱讀》

- [ChatGPT 爆個資外洩風險，網友在聊天紀錄中看到別人的內容](#)
- [微軟推出 Security Copilot：用對話的方式就能幫你分析資安漏洞](#)
- [假 ChatGPT 擴充功能出沒請小心，內藏惡意程式還會竊取 FB 帳號](#)

東大 松尾豐教授領軍 日本 Deep Learning 協會首發「生成式 AI 使用指南」



<https://www.inside.com.tw/article/31495-JDLA%20MatsuoYutaka%20AIGC%20Guideline>

隨著 ChatGPT、繪圖 AI 等快速普及，日本政府多次宣言將在各層面的行政業務導入生成式 AI 技術運用，顯示對於生成式 AI (AIGC) 的運用已從單純的個人運用、漸漸將轉移為組織機構提高生產力的工具之一。有鑑於此，「[日本 Deep Learning 協會 \(JDLA \)](#)」於 1 日發表「生成式 AI 的使用指南」，對於包含社會關注的資安、以及著作權等議題訂定使用建議，將有助於企業或機關團體更安全的使用 AI 工具實現組織目標。

「利用生成 AI 時需要注意的事項有幾點。例如，用戶所輸入的數據，是否有（資安上）隱憂？我們應該如何思考輸入個資或機密資訊的風險？是否可以輸入他人的著作物？」松尾豐教授強調。「這些問題是所有組織共通的，因此就很需要大家共享一個一般性的看法」。

松尾豐被日媒譽為日本 AI 研究首屈一指的專家。為非營利組織「[日本 Deep Learning 協會](#)」理事長，松尾研究室至今也以培養大量學生創業聞名。日本執政黨自民黨於 2 月起召開國家 AI 政策提案會議、成立後首次會議就是由松尾豐教授簡報，資料公開後因內容深入淺出、一度在網路引起話題。

指南怎麼說？

該指南分為 6 大部分，可供欲導入生成式 AI 技術的機關團體、編修為適合組織目標的版本使用。內容包含：

- 指南的目的（如提升業務效率、激發創新想法等）
- 針對的是何種技術（如 OpenAI 公司所提供的 ChatGPT 服務）
- 禁止用途（如東京大學於今年 4 月宣布該校要求學生在學位和報告，必須以本人完成為前提，因此不能「只」使用生成式 AI 如：ChatGPT、BingAI、Bard、Midjourney、Stable Diffusion 等，來完成這些工作）
- 指南的結構（由於使用生成 AI 包含 input 與 output 兩方面，因此主結構必須包含「輸入」數據時、與「利用」生成物時，等雙方面的注意事項）
- 在輸入數據時應注意的事項
- 在利用生成物時應注意的事項

根據指南說明，僅將他人的著作物、註冊商標或設計、名人的臉部照片或姓名等「輸入」生成式 AI 的行為並不構成侵權，但會因生成物的內容與原始來源的相似度，在使用時引起問題。因此應注意不使用僅學習特定創作者的專用 AI、提示內容時避免使用現有作品・創作者及版權物的 prompt，如果生成物與既有的版權物相同或太類似，就可能構成侵權。

另外在資安相關議題，則建議將數據輸入 OpenAI 時，若包含個資、則應取得當事人同意；在現實不可能取得當事人同意時，則不應使用該個資。但若使用 OpenAI 的 API 可以滿足個資規範的條件時，有可能符合法規。這種情況應與組織的資安部門確認。

簽訂 NDA 等協議的內容不應輸入生成式 AI，因為提供服務的業者屬「第三方」，因此會構成違反 NDA，必須禁止輸入。

此外，由於生成物本身可能不具著作權，因此為了確保出於人類的「創作性貢獻」，如使用繪圖 AI 時，應盡量使用詳細且長段的 prompt 生成、多次修改、從多個圖像中選取、對生成影像加筆等。而商用相關問題，如使用 Midjourney 時，免費會員無法將生成物用於商業用途等，依業者的規定而異，應確認個別提供者的使用條款。

松尾豐被日媒譽為日本 AI 研究首屈一指的專家。為非營利組織「日本 Deep Learning 協會」理事長，松尾研究室至今也以培養大量學生創業聞名。日本執政黨自民黨於 2 月起召開國家 AI 政策提案會議、成立後首次會議就是由松尾豐教授簡報，資料公開後因內容深入淺出、一度在網路引起話題。

JDLA 由以深度學習為核心的企業為主集結成立，意圖透過深度學習技術提升日本的產業競爭力。以參與企業與相關專家為首，JDLA 在產業應用、人才培育、針對公部門與產業的倡議、國際合作、與社會對話等，為促進產業健全發展而展開必要的活動。

「本次內容的定位是 2023 年 5 月公開的初版」。松尾豐教授表示，「但是在這份指南當中作為具體案例的 ChatGPT 等、大型語言模型（LLM）技術的進化速度不斷加快，每天每天都在進行功能改進、追加功能等版本升級。本指南也將配合技術的進展、業界的動向等，隨時進行更新」。

本指南可於日本 Deep Learning 協會官網免費下載參閱：

<https://www.jdla.org/document/>

週次	課程主題	課程內容與指定閱讀	教學活動與作業	學習投入	
				時間	
				課堂	課程
1	計算思維簡介	社會情境脈絡與未來發展 書目：1, 2, 3	課程講授	3	3
2	計算思維	基本內涵與核心概念 書目：1, 2, 3	課程講授、討論	3	5
3	功能模組	問題拆解與型態辨認 書目：4, 5, 6	課程講授、討論	3	5
4	功能模組	抽象思考與演算邏輯 書目：4, 5, 6	課程講授、討論	3	5
5	國慶日	國定假日		0	0
6	類比至數位轉換 & 電腦運算架構	類比與數位訊號的基礎概念及類比轉換至數位訊號的原理 & 電腦組成元件與其運算架構 書目：7 chapter 1 & 4 & 5	課程講授、討論	3	5
7	大數據應用	大數據中資料科學的基礎分析概念與商業相關應用	課程講授、討論	3	5
8	學習成果測試	期中評量/作業活動	主題設計討論與同儕學習	3	6
9	人工智慧發展	人工智慧發展歷程與未來趨勢	課程講授、討論	3	5
10	運算思維測驗	國際運算思維挑戰賽	線上測驗	3	3
11	人工智慧技術與應用 & 生成式人工智慧	人工智慧各式技術與應用案例 & 生成AI(如：ChatGPT、Midjourney) 書目：8	課程講授、主題設計討論與同儕學習	3	5
12	人工智慧模型實作	Nocode AI 練習 – Rapidminer & 人工智慧專題實作 書目：9	課程講授、程式演練	3	6
13	人工智慧倫理	未來人工智慧應用上的倫理問題 & 人工智慧專題優化	課程講授、討論	3	5
14	人工智慧應用場景	人工智慧跨域應用專家講座	課程講授	3	6
15	人工智慧專題	海報展示	學習成果實作分享	3	6
16	計算思維與人工智慧	期末報告	學習成果實作分享	3	6
17	彈性補充教學	人工智慧相關競賽經驗交流	數位平台交流	0	5
18	彈性補充教學	校園人工智慧應用發想	數位平台交流	0	5

AI識才預測： 用AI協助企業找到對的人

你未來的工作績效如何? AI已經知道!

12月12日(二) 9:00-11:30

研究大樓203教室

開放全校參加



講者：周千翔博士 (Devin Chou)

Vice President of Sales, Greater China at PerceptionPredict AI

【講座介紹】本次的演講將介紹AI識才預測，了解PerceptionPredict系統在企業中怎麼發揮績效預測的作用，如何優化既有的招聘任用方式，並展示提升選才公平性與效率的相關說明與案例。歡迎一起來了解AI如何在人才管理上開創新局面!

【講者介紹】

畢業於政大資管的周博士是PerceptionPredict業務副總，負責推動大中華地區的業務和發展。作為一名社會科學研究者，他對於人類行為研究的興趣不僅在學術界，更跨足現實商業場景。因為對於人類特質分析的投入，逐漸使他的職涯焦點轉向了AI人才分析。這使他遇見了PerceptionPredict，這是一個深植於人性的AI技術解決方案，可以為每家公司找出推動人才績效表現的獨有特質組合，並預測人才未來績效。



人工智慧跨域研究中心
Interdisciplinary Artificial Intelligence Center

期末專題

- 整合 Micro:Bit / RapidMiner 設計

期末海報展演 (12/21 週四11:30~13:30 4門課聯合)+ 期末報告
含組內互評/組外互評/助教與老師評量

- 參考他人作品，務必註明出處
- 使用生成式AI工具注意事項

(1) 作業得適當使用生成式AI工具，使用的過程和結果應在作業中透明地說明和引用，並需於附件載明所使用工具名稱，並詳述使用過程。

(2) AI生成內容應被視為工具產生的建議，請經過調整再作為作業內容。生成式AI工具得作為報告輔助，但學生仍需要進行批判性思考。

實作方式

- 使用上課學過的micro:bit/RapidMiner
 - 期末專案主要是呈現這學期修課成果，為了讓大家都可以參與，也在同一個公平的比較點上

期末專案：5W1H

研究題目	動人的標題+隊名(團隊成員) 口頭報告: 除標題與隊名+封面+簡要的項目描述 (文案)
研究目標	Why 欲解決問題/定義問題(數據佐證或故事情境) What 解決方案/設計構想/核心具體對策概念 Who 目標群體 Where 目標場域/對象範圍/切入點
文獻探討	背景/鑑往知來/可行性 (附文獻出處) (若有斟酌加分)
研究資料	資料庫來源(若有使用)/資料前處理過程
研究方法	How 軟體(micro:bit/RapidMiner)流程/執行步驟
研究結果	What micro:bit/RapidMiner相關應用 口頭報告: 如果含Demo建議透過事先拍攝影片來呈現)
研究結論	亮點/強化印象
團隊成員	口頭報告: Who 職責分工

<https://www.ikanpan.com/a/202102/148256.html>

<https://www.cheers.com.tw/article/article.action?id=5027238>

<https://www.workerroom.com.hk/zh-HK/blog/%E5%95%86%E6%A5%AD%E8%A8%88%E5%8A%83%E6%9B%B8%E6%92%B0%E5%AF%AB%E8%A8%A3%E7%AB%85>

<https://reader.mybook.taiwanmobile.com epub/preview/B0005001006050211/item/xhtml/p-003.xhtml>

期末口頭報告注意事項

- 報告順序由程式隨機決定
- 每組報告 ?? 分鐘
- 當天時間緊迫，時間一到，將停止報告，以示公平
- 有demo者務必控制時間，建議試先拍攝影片
- 如果參考他人作品或程式碼，務必指出參考部分，未列出事後發現者，該組成績報告成績**以0分計算**
- 請報告前一天 23:59 前，將報告檔案上傳moodle

2030永續發展目標(SDGs)

由於氣候變遷、經濟成長、社會平權、貧富差距等難題如重兵壓境

2015年，聯合國宣布了「2030永續發展目標」(Sustainable Development Goals)

SDGs包含17項核心目標，其中又涵蓋了169項細項目標、230項指標，指引全球共同努力、邁向永續。

有193個國家同意在2030年前，努力達成 SDGs 17項目標。





AI 中心
IAIC

設計思考

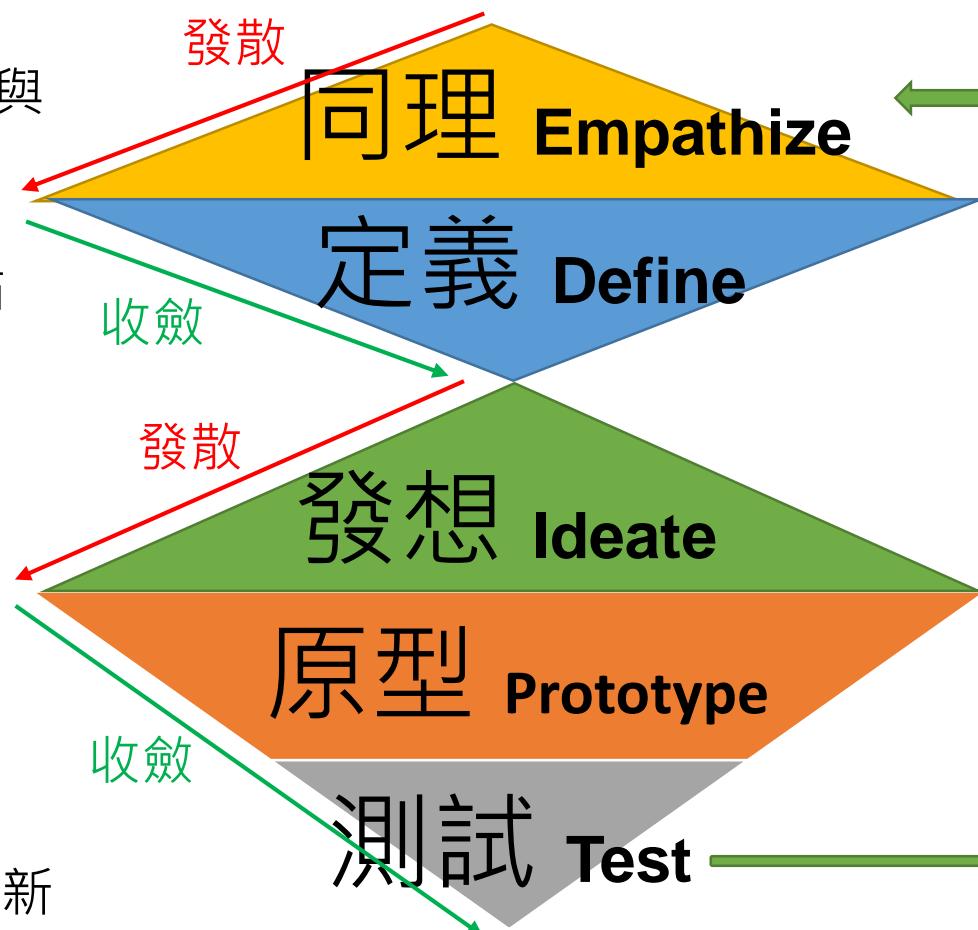
以人為本 洞察需求
觀察/訪談/諮詢/親身參與

★ 定義核心問題/切入點

★ 創意發想多/廣

★ 重要概念簡單/快速
/具體化呈現

概念驗證評估
取得目標族群回饋以更新



興趣 關注 趨勢
時事 新聞 影片

脈略
(發現問題)



解法
(解決問題)

<https://empathizeit.com/design-thinking-models-stanford-d-school/>

<https://dschool.stanford.edu/>

<https://bigdata.nccu.edu.tw/t/topic/533>

https://www.mindmapping.com.tw/knowledge_details.php?id=2710

<https://www.cw.com.tw/article/5101175>

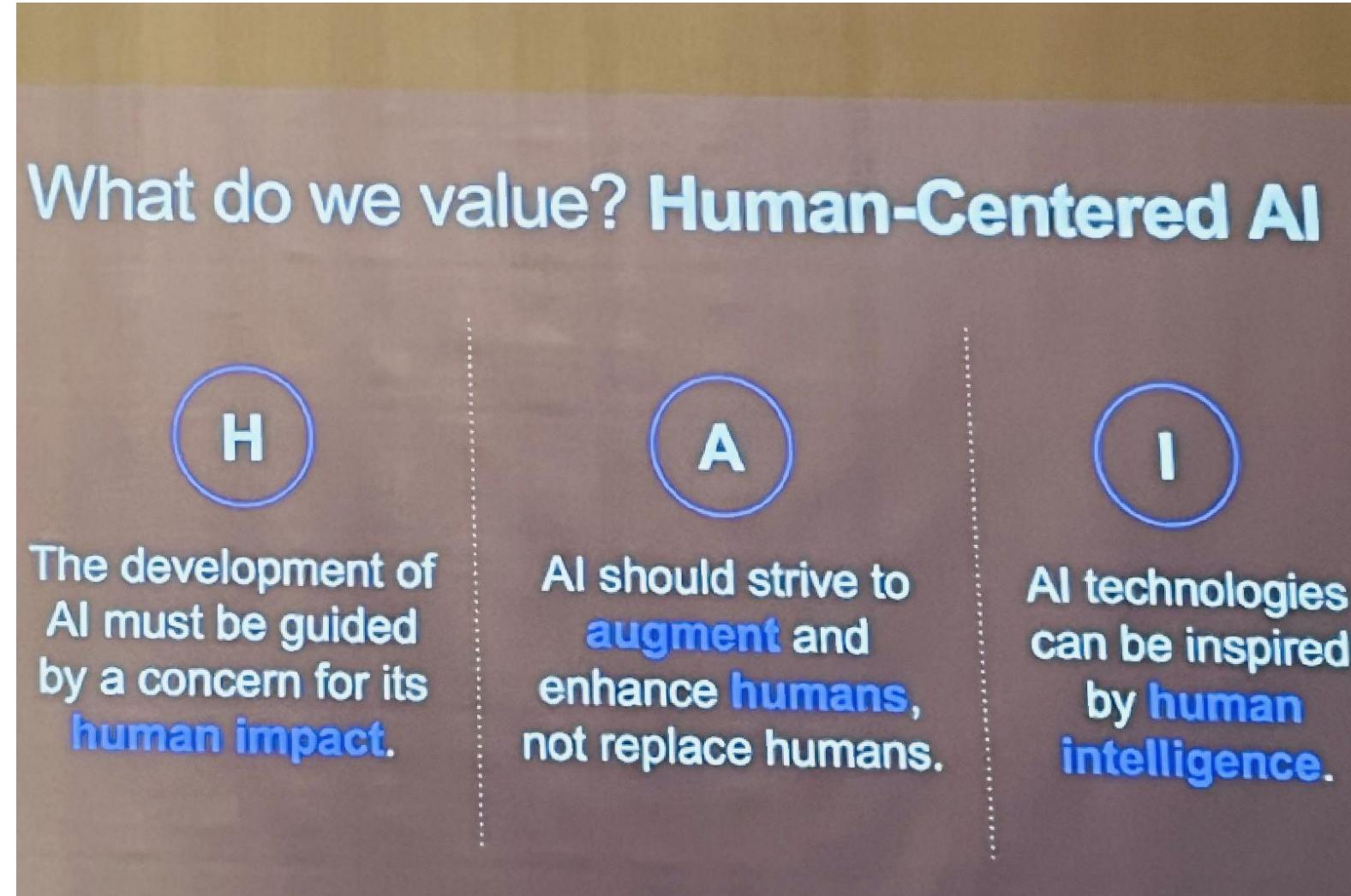
<https://management-of-innovation.blog/the-steps-for-design-thinking/>

<https://yang-han.medium.com/%E8%A8%AD%E8%A8%88%E6%80%9D%E8%80%83%E6%98%AF%E4%BB%80%E9%BA%BC-%E4%BA%94%E5%A4%A7%E7%B6%93%E5%85%B8%E5%8F%A5%E5%9E%8B%E5%A4%A7%E6%94%BE%E9%80%81-design-thinking-workshop-4e510565b300>

<https://medium.com/moodwide/%E8%A8%AD%E8%A8%88%E6%80%9D%E8%80%83%E5%BE%9E-%E9%9B%99%E8%8F%B1%E5%BD%A2-%E5%88%80%E4%BA%94%E5%80%8B-%E5%85%AD%E9%82%8A%E5%BD%A2-%E8%83%8C%E5%BE%8C%E7%9A%84%E8%BD%89%E8%AE%8A-%E5%8A%A0%E5%85%A5-E6%8E%99%E6%89%8E%E5%80%80-groan-zone-%E4%BB%A6%E7%9C%8B%E6%B8%85%E6%AF%8F%E5%80%8B%E6%B5%81%E7%A8%8B-bf214ea882c>

Human-Centered AI

美國史丹佛大學資訊科學兼任紅杉教授、Google前首席科學家李飛飛



What do we value? **Human-Centered AI**

H

The development of AI must be guided by a concern for its **human impact**.

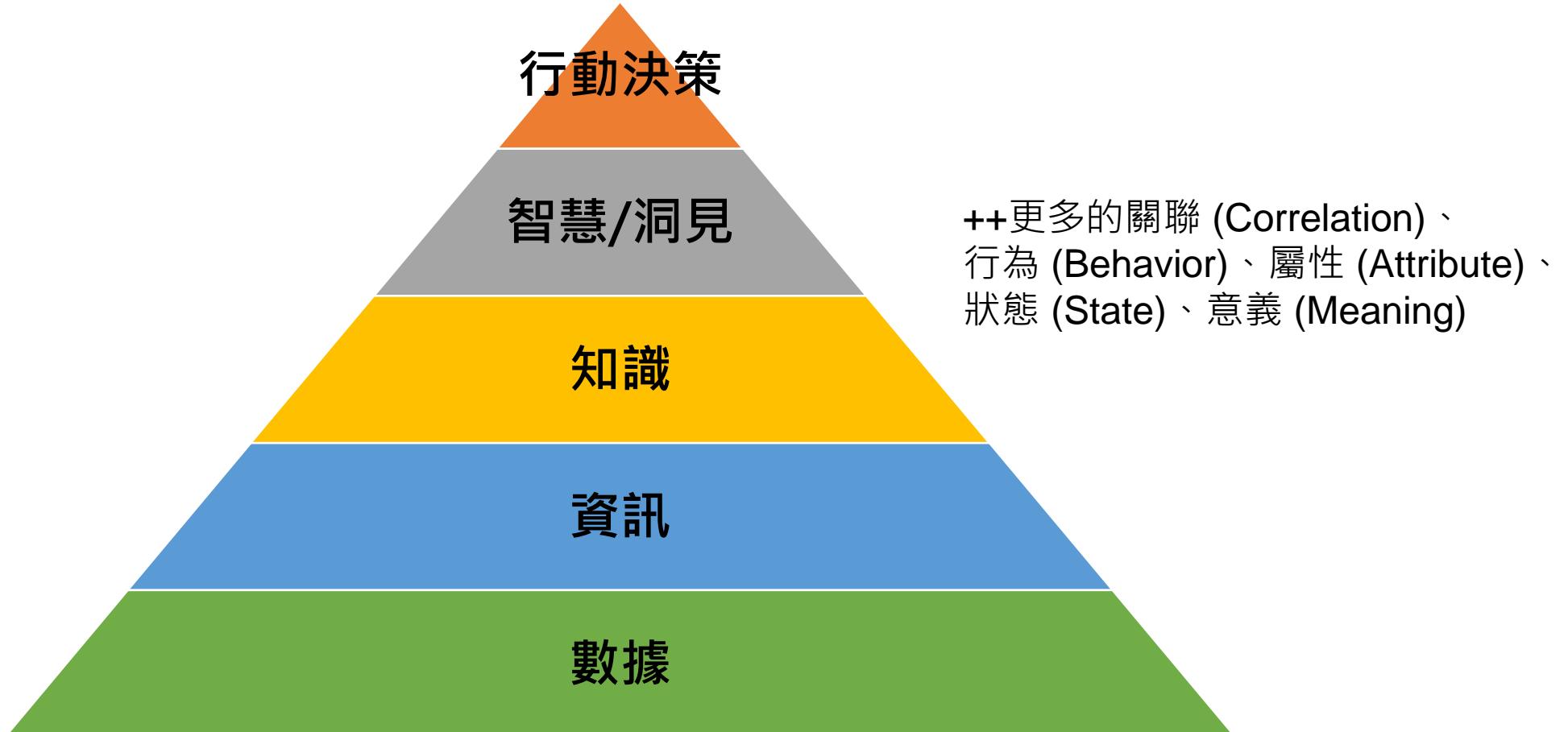
A

AI should strive to **augment** and enhance **humans**, not replace humans.

I

AI technologies can be inspired by **human intelligence**.

數據導向的智慧決策

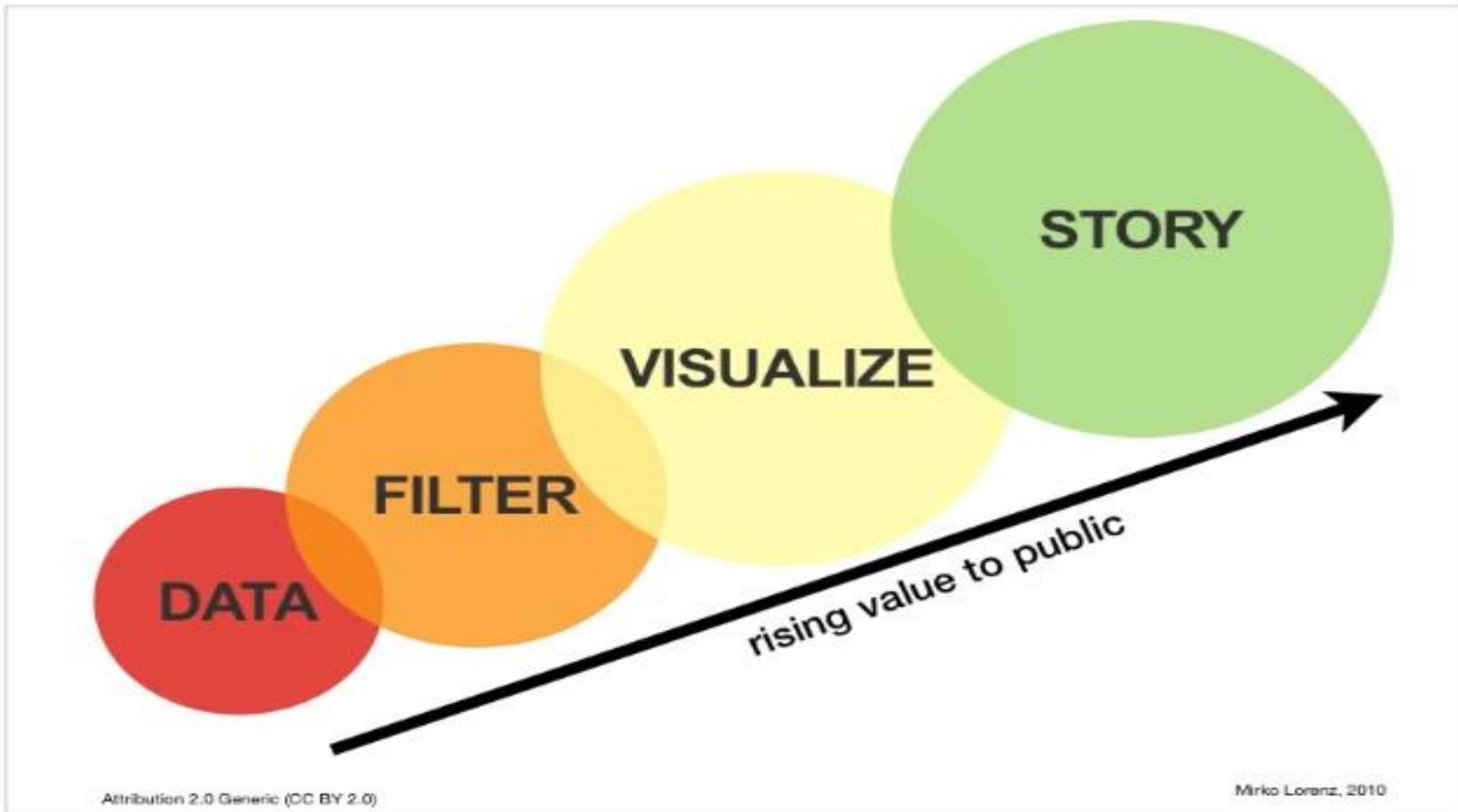


Rowley, Jennifer (2007). "The wisdom hierarchy: representations of the DIKW hierarchy". *Journal of Information and Communication Science*. 33 (2): 163–180.

大數據概論(新陸書局)
<http://fredbigdata.blogspot.com/2013/05/big-data.html>
https://en.wikipedia.org/wiki/DIKW_pyramid

數據導向的故事

DATA-DRIVEN JOURNALISM = PROCESS



人工智慧 AI



<https://kknews.cc/zh-tw/tech/63epkov.html>



機器學習 深度學習



Artificial Intelligence

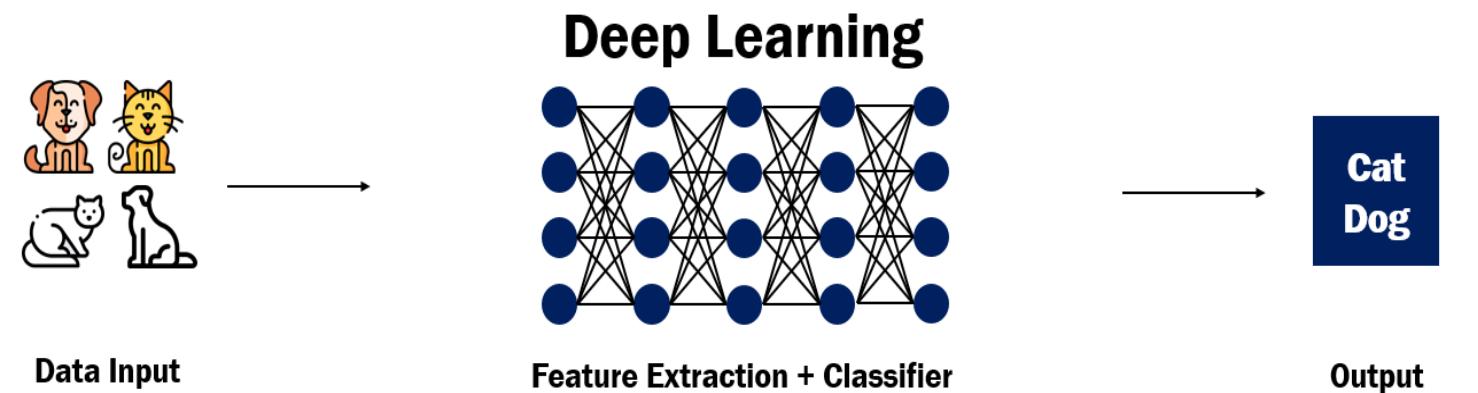
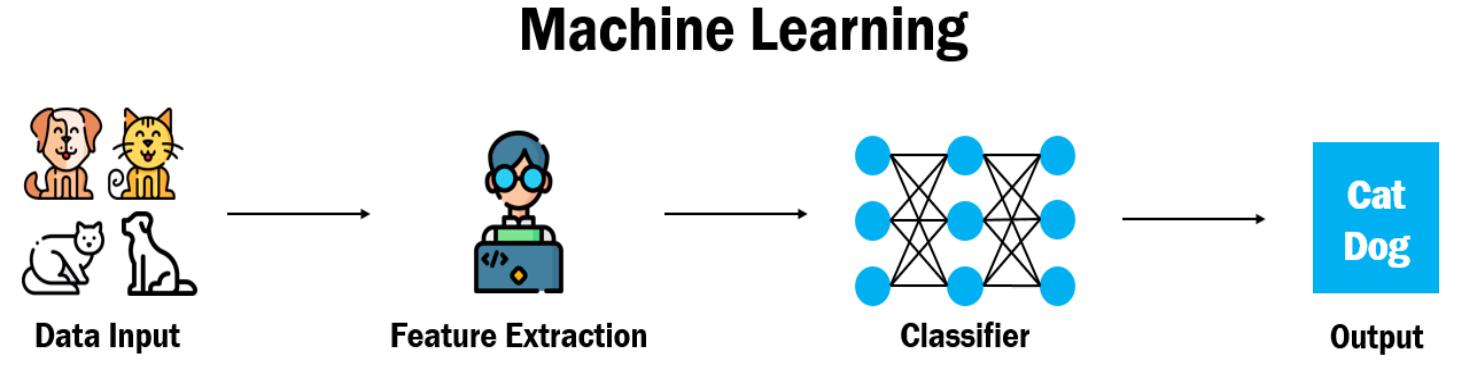
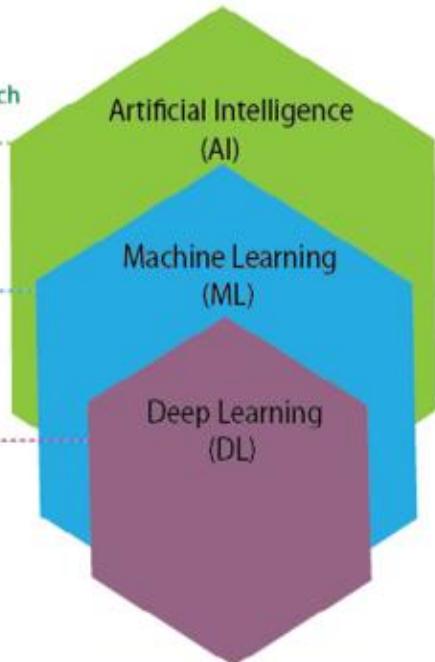
Programming system to perform tasks which normally require human intelligence

Machine Learning

A subfield of Artificial intelligence

Deep Learning

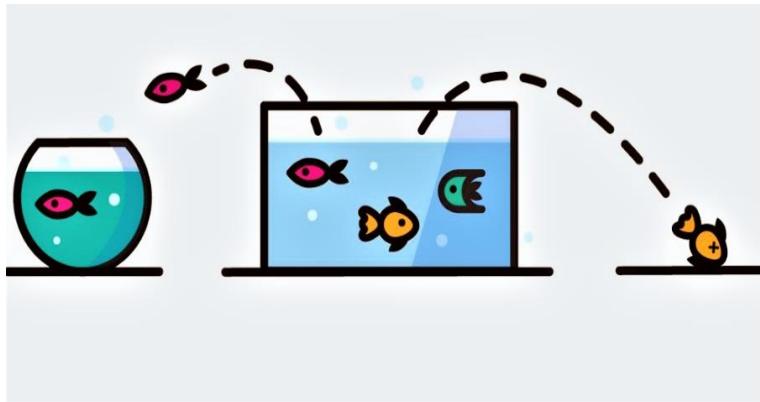
A subfield of Machine Learning



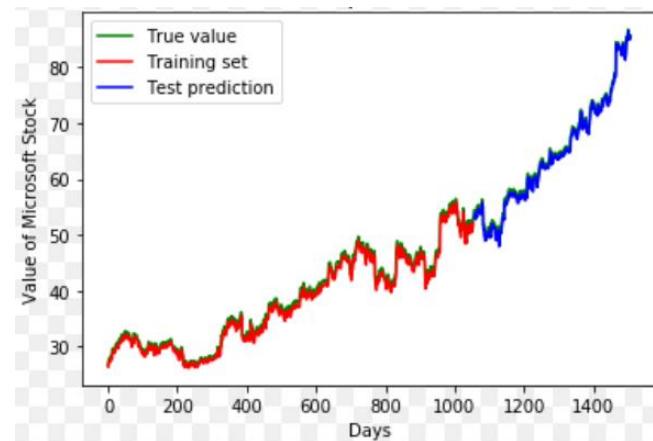
人工智慧 機器學習



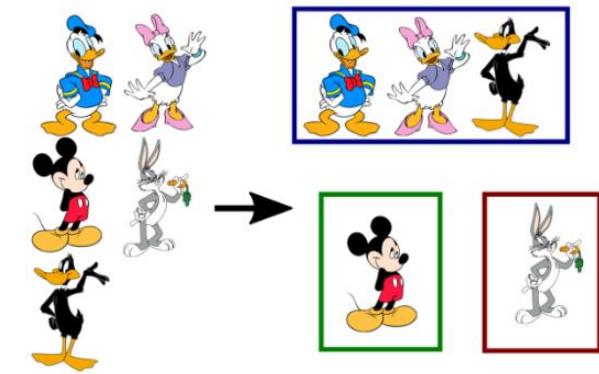
分類 Classification

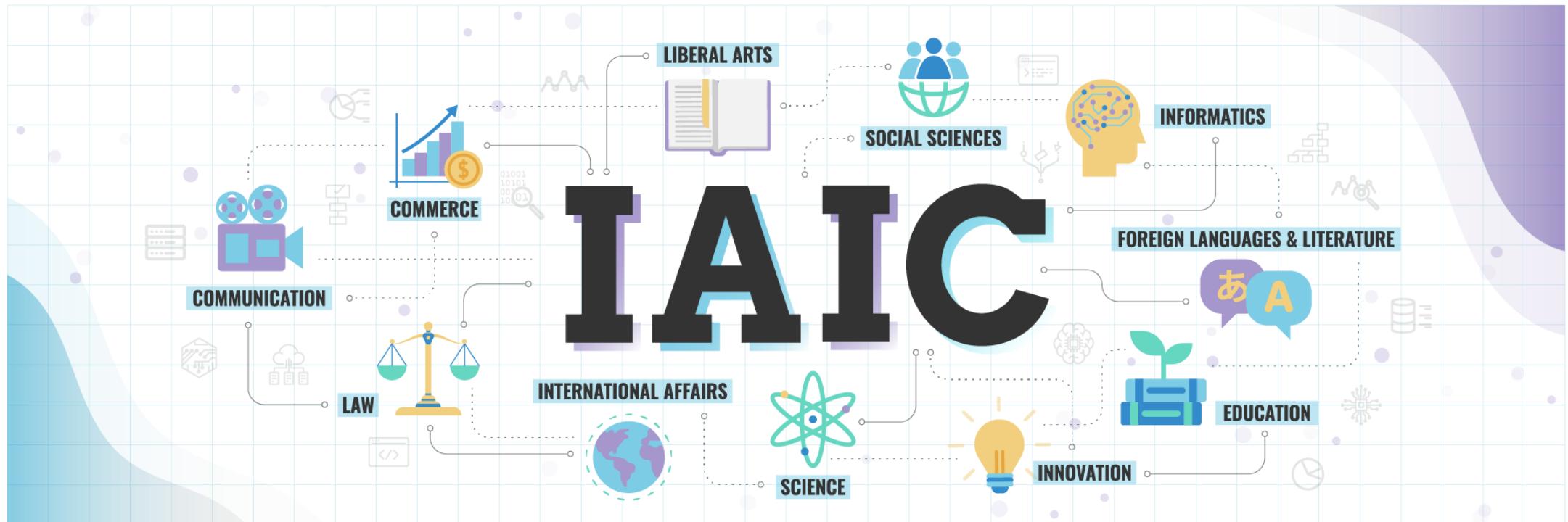


迴歸 Regression



分群 Clustering

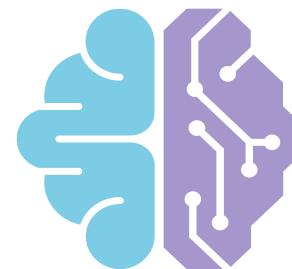




研究合作 跨域教學 多元服務



國立成
都大學
NATIONAL CHENGCHI UNIVERSITY



人工智慧
跨域研究中心
Interdisciplinary Artificial
Intelligence Center

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《AI孫燕姿 - 是真的AI生成嗎?》

https://www.facebook.com/groups/aiupgrade/permalink/1358046781594326/?mibextid=Nif5oz&paipy=0&eav=AfaKy3msiw4VDqM-Aa_cjH9d2nM8rK8Rb4kWmXoM1RyXkr7axnTc7Mwt1da1jOt_MY0&_rdr

《AI孫燕姿 - 是真的AI生成嗎?》

最近聽了一些大陸B站的AI孫燕姿翻唱歌曲，實在覺得不可思議，甚至一度覺得是真人翻唱的吧！

AI孫燕姿唱"紅豆" <https://youtu.be/54fIH0hbEWw>

AI孫燕姿唱"一場遊戲一場夢" <https://youtu.be/uPMXn7IbdXw>

但還是發揮認真查證的精神，Github上的確找到了一些歌聲修改模型 singing voice conversion model(SVC)。

<https://github.com/svc-develop-team/so-vits-svc>

YouTube上也找了一個比較簡短的介紹影片：

<https://www.youtube.com/watch?v=Vv3EJM8QeQc>

簡介：這段影片介紹了如何使用人工智能將一位歌手的聲音轉換成另一位歌手的聲音。使用的程式名為SVC（歌唱聲音轉換），不同於其他程式如Uberduck所使用的TTS（文本轉語音）。過程涉及選擇聲音模型和輸入欲轉換的聲音檔案。影片提供了一個逐步指南，介紹了如何通過Google collab和擁有AI機器人的Discord頻道來使用SVC。歌唱聲音轉換的潛在應用包括音樂製作和向流行歌手推銷樣本演唱。

「AI 孫燕姿」對音樂界進行的革命

在當今這個AI速發展的時代，我們生活的方方面面都受到了前所未有的影響。音樂行業也不例外，從過去賣CD到賣版權與開演唱會，音樂公司總是在科技革命下重新找到生存方式。而不遠的未來，我們可能可以自由地選擇喜歡的歌手唱喜愛的歌曲，以最符合自己喜好的方式享受音樂。音樂公司必須不斷創新和調整策略，以應對各種挑戰。雖然這種"自助餐式"聽歌方式可能會對傳統的音樂商業模式產生影響，但只要音樂公司能夠靈活應對，找到與時俱進的行銷策略。未來的音樂市場必定會呈現出更多元化與更蓬勃的發展。

ChatGPT資源蒐集

本文整理ChatGPT的相關資源，分為三類：1.Chrome擴充套件、2.教學文章、3.資源整理

<https://yanwei-liu.medium.com/the-best-online-resource-for-chat-gpt-ecac204d019f>

1.Chrome擴充套件

[AIPRM for ChatGPT](#)

一鍵使用他人預先定義好的Prompt(提示詞)，進行問題詢問

[ChatGPT for Google](#)

在使用Google進行搜尋時，同時顯示ChatGPT的回答結果

[ChatGPT for StackOverflow](#)

顯示StackOverflow網站上的問題，透過ChatGPT回答的結果

[ChatGPT for zhihu](#)

顯示知乎網站上的問題，透過ChatGPT回答的結果

[ChatGPT Writer — Write mail, messages with AI](#)

使用ChatGPT快速撰寫Email

[YouTube Summary with ChatGPT](#)

現在Youtube影片長度動輒10~20分鐘，使用ChatGPT快速進行影片內容總結

Voice Control for ChatGPT

透過語音的方式使用ChatGPT

Glarity-Summary for Google/YouTube (ChatGPT)

在Google搜尋和Youtube影片旁邊顯示透過ChatGPT總結的結果

WebChatGPT: ChatGPT with internet access

讓ChatGPT具備網頁搜尋的能力，不受限於2021年以前的資料庫限制

ChatGPT Prompt Genius

Discover, share, import, and use the best prompts for ChatGPT & save your chat history locally (formerly ChatGPT History)

Luna — ChatGPT for Chrome

一鍵使用ChatGPT進行問答

MagicSlides App

使用ChatGPT搭配Google Slide一鍵生成PPT投影片

ChatGPT Executor

直接在ChatGPT網頁執行生成的程式碼

2. 教學文章

[6 ChatGPT mind-blowing extensions to use it anywhere](#)

[20 Entertaining Uses of ChatGPT You Never Knew Were Possible](#)

[Prompt Engineering 101: Introduction and resources](#)

[“ChatGPT x Colab 打造聊天機器人” 分享會補課](#)

[ChatGPT 「剋星」來了，文章作者是人是 AI 幾秒就現形！](#)

[ChatGPT 的翻譯有比 Google 翻譯更優秀嗎？](#)

[ChatGPT Alternatives for Prompt Engineering](#)

[大眼仔推荐：110 个不可不知的 ChatGPT 文案示例终极使用指南](#)

[ChatGPT 詠唱案例懶人包 — 超過 40 個現實世界的應用範例 \(持續更新\)](#)

[ChatGPT詠唱指令咒語攻略Part2](#)

[ChatGPT LINE機器人創建教學，教你打造個人專屬LINE AI 助理隨時都能聊](#)

[用ChatGpt 幫你製作上百部影片 | 輕鬆當YT](#)

3. 資源整理

[EmergentMind](#)

The best ChatGPT examples from around the web

[awesome-chatgpt](#)

Curated list of awesome tools, demos, docs for ChatGPT and GPT-3

[awesome-chatgpt-prompts](#)

This repo includes ChatGPT prompt curation to use ChatGPT better.

[ChatGPT Prompts and Products — PromptVine](#)

The Ultimate Collection of ChatGPT Products and Prompts

[600+ ChatGPT and GPT-3 Examples, Demos, Apps, Showcase, and AI Use-cases |](#)

[Discover AI use cases](#)

[ChatGPT 中文调教指南](#)

ChatGPT 中文調教指南。各種場景使用指南。學習怎麼讓它聽你的話。

[chatgpt醉心使用教程及指南](#)

[ChatGPT Cheat Sheet & Quick Reference](#)

[The ChatGPT Cheat Sheet](#)

[ChatGPT 指令大全](#)

[The Ultimate Chat GPT Course](#)

4.我透過ChatGPT寫的文章

[ChatGPT使用案例\(一\)：Image Enhancement的入門教學文章](#)

Customized Text-to-Image Generation

- Zhiheng Liu, Ruili Feng, Kai Zhu, Yifei Zhang, Kecheng Zheng, Yu Liu, Deli Zhao, Jingren Zhou, and Yang Cao. 2023. [Cones: concept neurons in diffusion models for customized generation.](#) (ICML'23), Vol. 202. JMLR.org, Article 890, 21548–21566.

Subject 1 (Person)



Subject 2 (Object)



Subject 3 (Background)



(a) Reference images

Person + Object



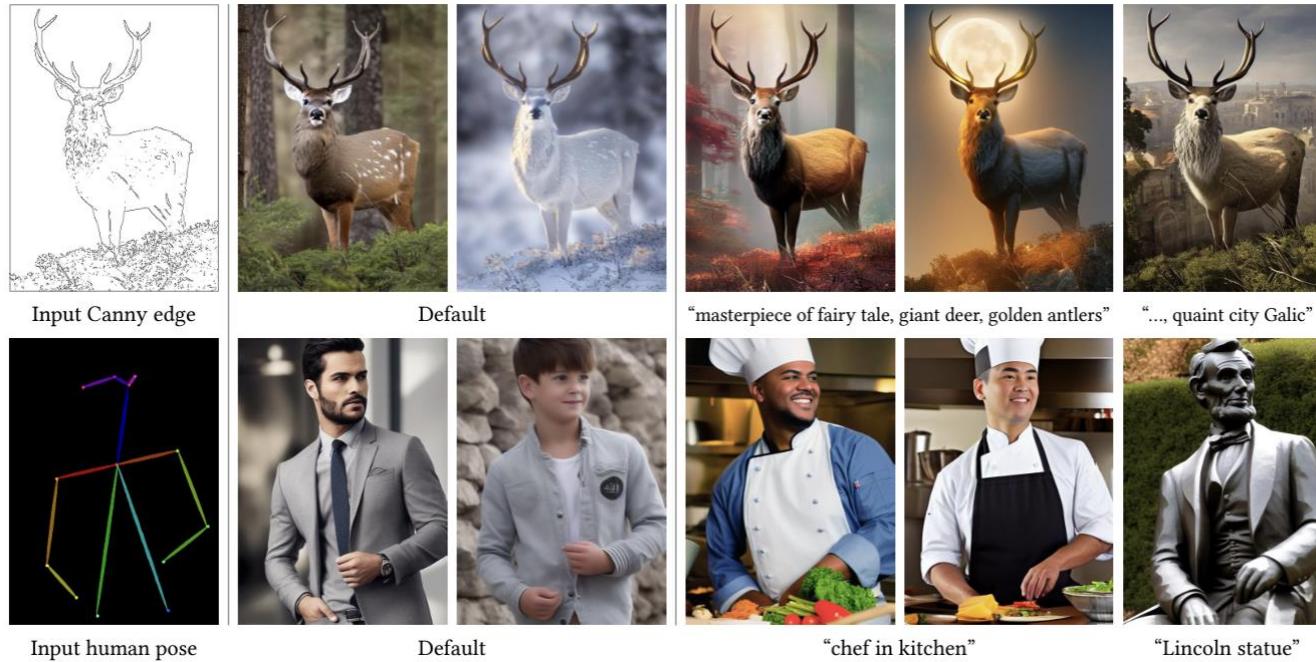
Person + Objects + Background



(b) Images generated by concatenating subject-specific concept neurons

Adding Conditional Control to Text-to-Image Diffusion Models

- Lvmin Zhang and Anyi Rao and Maneesh Agrawala, [Adding Conditional Control to Text-to-Image Diffusion Models](#), IEEE International Conference on Computer Vision (ICCV), 2023



Text-to-Video

- Meta: Make-A-Video with text
- Google: Imagen video



Text-to-Music

- Google research: [MusicLM: Generating Music From Text](#)
- Meta: [Open sourcing AudioCraft: Generative AI for audio made simple and available to all](#)

Audio Generation From Rich Captions

Caption	Generated audio
The main soundtrack of an arcade game. It is fast-paced and upbeat, with a catchy electric guitar riff. The music is repetitive and easy to remember, but with unexpected sounds, like cymbal crashes or drum rolls.	0:00 / 0:30
A fusion of reggaeton and electronic dance music, with a spacey, otherworldly sound. Induces the experience of being lost in space, and the music would be designed to evoke a sense of wonder and awe, while being danceable.	0:00 / 0:30

Meta

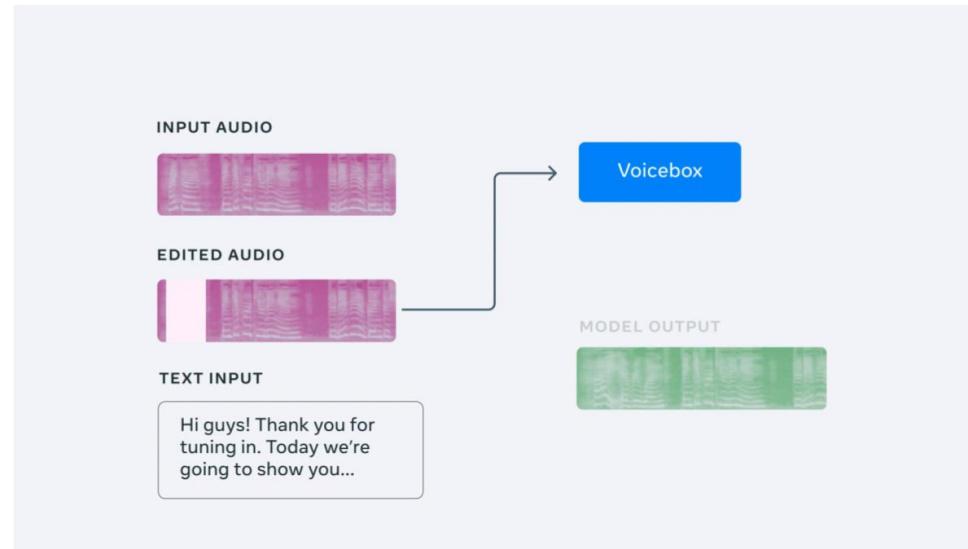
Introducing AudioCraft: A Generative AI Tool For Audio and Music

August 2, 2023



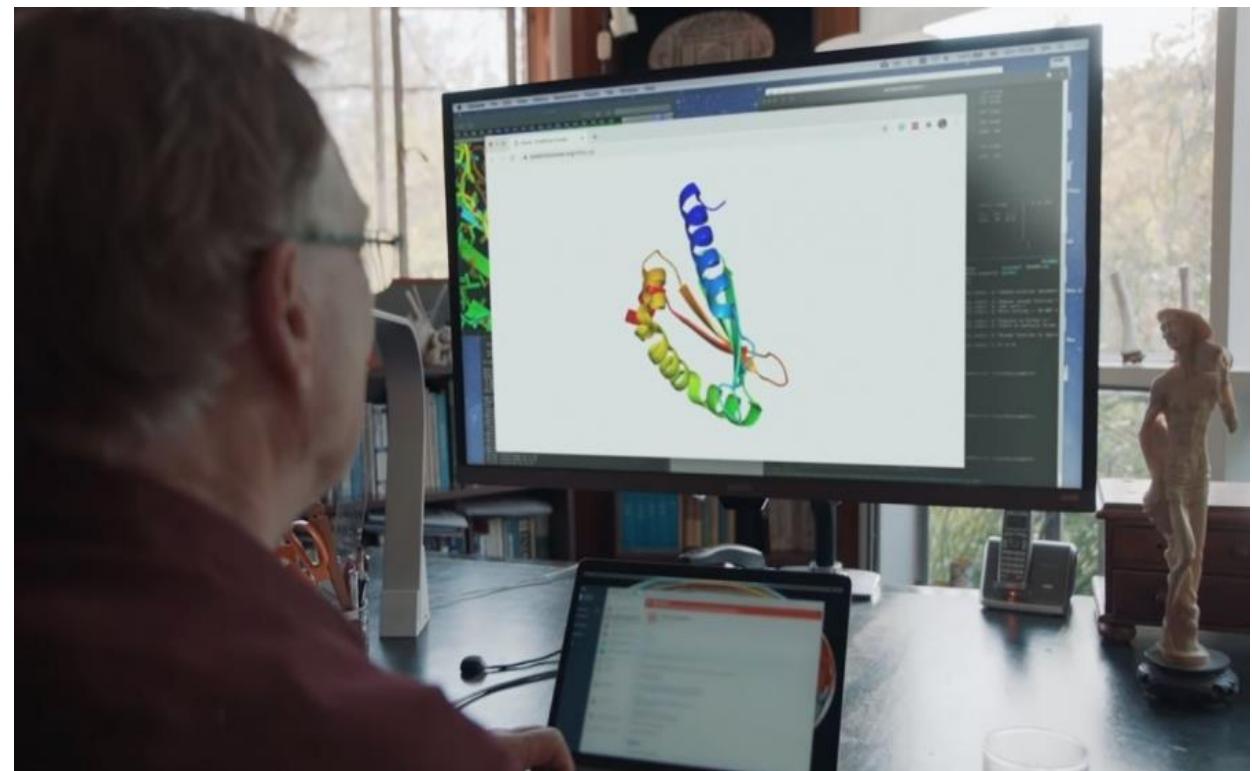
Voice Cloning

- Microsoft: [NaturalSpeech 2 VALL-E](#)
- Meta: [Voicebox](#)
 - <https://voicebox.metademolab.com/>





- 2020 DeepMind推出軟體AlphaFold，短時間之內，準確「預測蛋白質折疊」可說是AI在科學領域迄今最偉大的成就，有助於開發疾病解藥
- 2022 將AlphaFold DB中的蛋白質預測結構數量，從100萬擴充到2億，幾乎涵蓋了所有已知的蛋白質
- 蛋白質三級結構找到標靶點
→找到可結合蛋白質的標靶分子
→藥物研發(NLP論文+臨床試驗結果+機器人藥物實驗)



無接觸之戀-機器人

家庭

- 機器人管家 炒菜、烹飪、咖啡飲品、清潔、老人看護、遛狗

醫療

- 身體監測、公共場所淨化、隔離餐發放、遠端醫療、試驗樣本輸送、全自動化生物實驗(反覆運算使資料升級、降低病毒感染)
- 機器人手術2012年 1.8% → 2018年 15.1% → 奈米機器人醫師



<https://technews.tw/2018/08/12/da-vinci-surgery-detonate-new-business-wars/>

商業

- 品質檢驗、移動與操控物品、儲自動化
- 點到點自動化送貨(自動堆高機取貨、無人機與自動駕駛、快遞機器人送到家)
- 保全資訊服務台、送餐(高檔餐廳才有人類服務生)、行李、客房服務

農業

- 無人機 農作物播種 施肥 撒藥除蟲 收割 降成本 緩解糧食危機

AI時代的數位化工作 50%商務旅行消失 30%辦公室工作消失
永久居家辦公 視訊會議自動語音辨識存檔保存
虛擬化身 教師 客服 行銷人員

無接觸之戀

- 在疫苗問世後，新冠病毒毒株定期變異，繼續肆虐人間。二十年後，人類不得不學會與病毒共存，家家戶戶都配有機器人管家，以減少人與人接觸的風險。在這個故事裡，身在上海的女主角患上了一種把自己與世隔絕的恐懼症。當愛神來叩門時，她內心一方面渴望擁抱愛情，另一方面卻極度懼怕和戀人親密接觸。誰能幫助她邁出這關鍵性的一步

智慧醫療 (Smart Healthcare)

定義：資通訊科技（ICT）在醫療及健康領域的應用，包括醫療照護、疾病管理、公共衛生監測、教育和研究

by 世界衛生組織（WHO）

無接觸之戀-智慧醫療

大數據+人工智慧+軟硬體+物聯網的跨領域解決方案

大流行病預測

2025全球AI醫療市場年複合增長率41.7%



審閱AI診療結果
同理心關懷
溝通交流

MRI CT 放射診斷 病理 眼科
拍片 看片 分診
多感測房間 物聯網資料 醫療
資訊 病史 接觸者追蹤

AI與精準醫療及診斷：健康長壽
AI個人化膳食 睡眠 運動 藥物 診療

神聖車手

- 二十年後，自動駕駛技術正處於從人類司機切換到全AI司機的過渡時期。在這個有著動作大片節奏感的故事中，斯里蘭卡一名電競少年被招募進了一個神祕計畫，他將要面對的並不僅僅是遊戲中的對手.....

- 智慧城市/智慧化交通網**

基礎設施升級/嵌入感測器與無限通訊設備

+人車專屬道路分流

→路告訴車前方的危險/車看到視野外路況

- 限制:需大量資料 無法有所有情況資料**

1. 虛擬路況(合成跑出來的小狗資料品質?)

→出錯風險

2. 突發爆炸/天然地震而導航未更新

→擴增實境(AR)之遠端駕駛 + 最小延遲6G網路



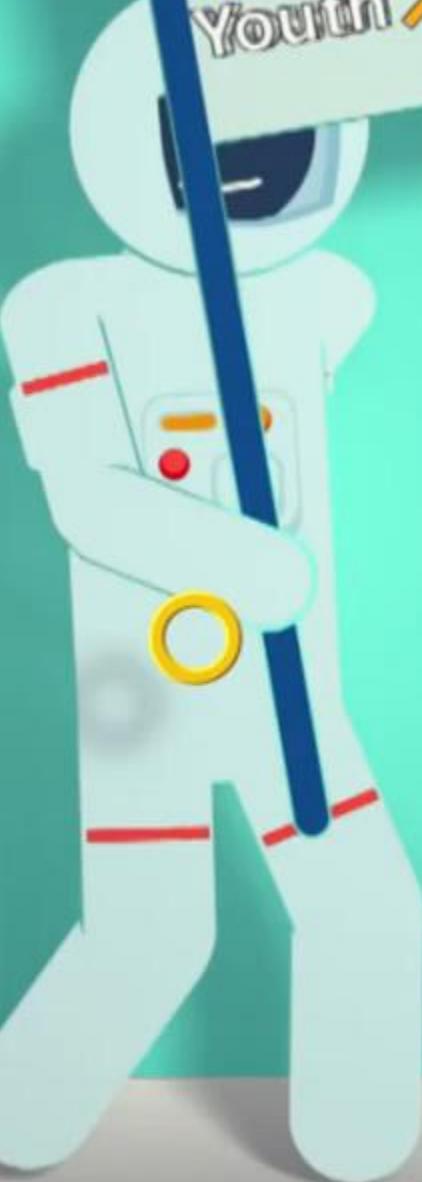
自駕車等級表

LEVEL	駕駛人監控 駕駛環境	自駕系統監控 駕駛環境
LEVEL 0 完全由駕駛人操控		
LEVEL 1 大部分需要駕駛人操控 駕駛輔助		
LEVEL 2 系統有多項駕駛輔助功能 仍須由駕駛人主控車輛 部分自動		
LEVEL 3 系統有辨識環境能力 駕駛可適當進行干涉 條件自動		
LEVEL 4 在條件許可下可讓系統完全自駕 駕駛人不一定要介入操控 高度自動		
LEVEL 5 任何情況下皆可由自駕系統完全操控 完全自動		

<https://esg.ettoday.net/news/2185994>

<https://futurecity.cw.com.tw/article/388>

青春愛讀書
Youth book



雙雀

- AI教師化身為韓國雙胞胎孤兒所喜愛的卡通化虛擬夥伴，分別幫助他們挖掘和發揮潛能。多虧有了AI的重要分支「自然語言處理（NLP）技術」，這兩個AI夥伴才能夠用人類的語言流利地和孤兒交談，建立情感連結和信任，幫助兄弟倆在失散多年之後重新找回彼此。

AI為教育賦能

AI教師	課堂人物	虛擬學生	人類教師
<ul style="list-style-type: none">• 指錯、閱卷、評分• 趣味教學個人化設計、亦師亦友夥伴	<ul style="list-style-type: none">• 虛擬人物復活之沉浸式體驗	<ul style="list-style-type: none">• 活躍課堂氣氛	<ul style="list-style-type: none">• 個性化人生導師：價值觀、批判性、創造力、潛能開發• 對AI工作指導規劃

AI in education

- **Personalization:** “It can be overwhelmingly difficult for one teacher to figure out how to meet the needs of every student in his/her classroom. ... AI systems easily adapt to each student’ s individual learning needs and can target instruction based on their strengths and weaknesses.”
- **Tutoring:** AI systems can “gauge a student’ s learning style and pre-existing knowledge to deliver customized support and instruction.”
- **Grading:** Sure, AI can help grade exams using an answer key; but it can also “compile data about how students performed and even grade more abstract assessments such as essays.”
- **Feedback on course quality:** For example, if many students are answering a question incorrectly, “AI can zero in on the specific information or concepts that students are missing, so educators can deliver targeted improvements in materials and methods.”
- **Meaningful and immediate feedback to students:** Some students may be shy about taking risks or receiving critical feedback in the classroom, but “with AI, students can feel comfortable to make the mistakes necessary for learning and receive the feedback they need for improvement.”

職業救星

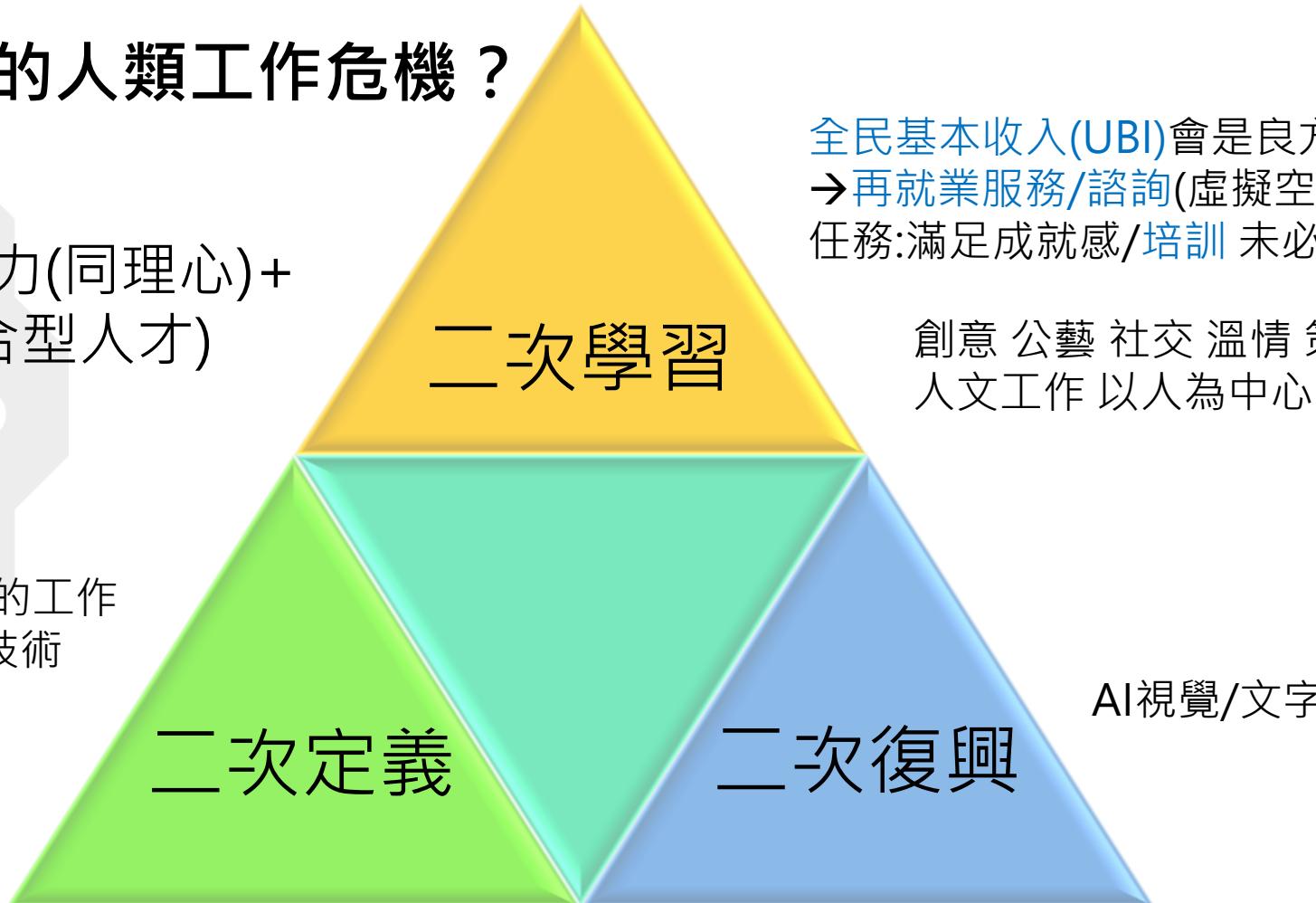
- 隨著AI向愈來愈多的行業穩步進軍，愈來愈多職位逐漸被AI技術取代，那麼人類接下來能從事的工作是什麼？一場發生在舊金山的建築業大震盪，帶領我們走入一個新的行業——**再就業服務**。如何幫助結構性失業人群找回屬於**人類的價值與尊嚴感**，也許同樣需要AI的幫助。

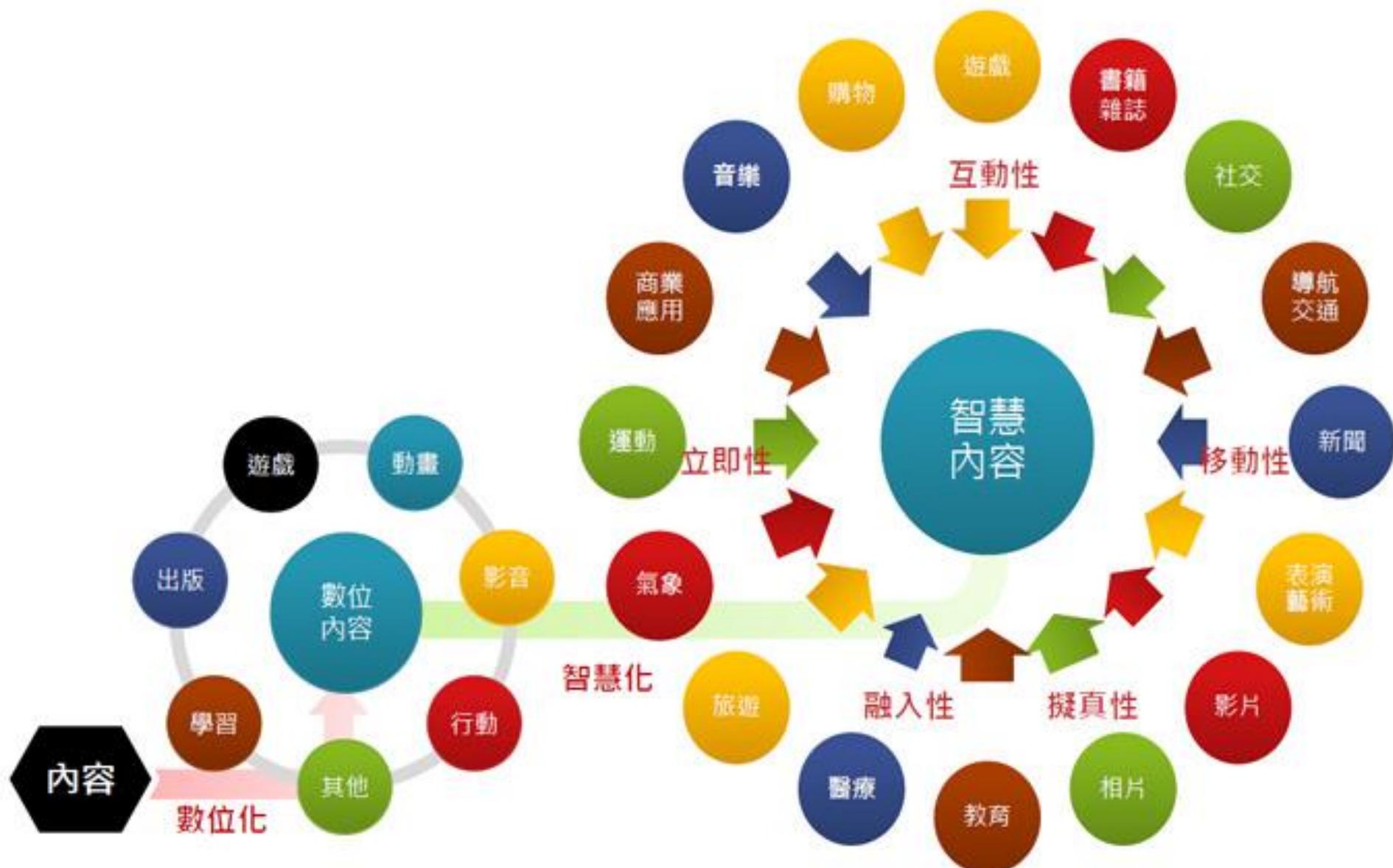
化解AI時代的人類工作危機？

人 > AI

→ 創造力 + 社交力(同理心) +
靈活性(跨域複合型人才)

人機協作模式的工作
以人為本 + AI技術
ex: 關愛型醫師





圖片來源：資策會MIC，2016年12月

http://www.naipo.com/Portals/1/web_tw/Knowledge_Center/Industry_Economy/IPNC_170111_0704.htm

幸福島

一位中東的開明君主想試驗將AI做為給人類帶來終極幸福感的靈丹妙藥。然而，幸福是什麼？幸福如何衡量？這位君主邀請了各界名人聚集在一座私密的島嶼上，讓這些名人**共享他們的個人資料**，並成為探索這個奇妙命題的小白鼠。然而，試驗卻出人意料地走向了失控.....

What 幸福感

- 貼心服務/有趣活動/短暫幸福
- 冒險/尊重/自我實現
- 個人化幸福追尋方案

How利用AI

衡量和提升幸福感

物聯網設備捕捉行為/
臉部表情/聲音/臉色
→情感計算識別
幸福感相關激素持續監測
血清素/多巴胺/催產素
/腦內啡

資料共享/保護

確保AI持有者與使用者利益完全一樣
資料共享/保護規則
隱私維護

豐饒之夢

在布里斯班一座由AI管理的養老社區中，一位原住民女孩如何幫助罹患阿茲海默症的海洋生物學家解開身世之謎？故事中勾勒了在澳大利亞的未來社會的兩種貨幣：一種是錢，其重要性日益減弱；另一種是代表聲譽和尊重的價值的新貨幣，其重要性與日俱增。

走向無限供給 後稀缺時代
去物質化，免費能源與材料/合成生物 材料創新
ex:人造食物 肌肉

豐饒時代的挑戰
金融改革+企業製造稀缺性仍存假象+社會變革(工人 富豪 政府 企業)



清潔能源革命

太陽能 + 風能 + 電池技術的有效結合
美發電成本2030 年降為目前1/4

AI與自動化 3D列印複雜客製化商品

AI技術突破

藝術/科學研究的創造力
推理/戰略/思考
同理/獲得人信任
自我意識與情感

豐饒之夢



Maslow 需求層次理論 (1943年)

貨幣制度

基本生活卡 生理 安全 教育 職業再培訓

+ 信譽貨幣 穆拉 愛與歸屬

智慧手腕帶 AI 聽人互動，看人情感
支出 (熱情/同理心)

自我實現的幸福感 鼓勵社會服務 vs.
炫耀標籤

AI 的故事會是圓滿的結局嗎？

生命意義遠超過財富獲取與傳承
和諧共生 共鳴樂章

舒適生活 實現自我 追求愛與夢想