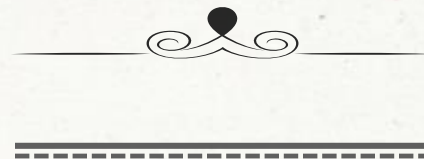




National Changhua University of Education



DALL•E
&
CoLab





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02 • CoLab



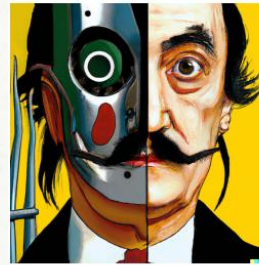
01

DALL • E



What is DALL • E?

- ◆ 薩爾瓦多 達利 (DALI) + 皮克斯動畫機器人瓦力 (WALL•E)
- ◆ OpenAI旗下的系統，以GPT-3模型(1750億個參數)為基礎開發
- ◆ 可根據輸入的語意直接創造各種風格的擬真或藝術圖片



vibrant portrait painting of Salvador Dali with a robotic half face



a shiba inu wearing a beret and black turtleneck



a close up of a handpalm with leaves growing from it



an espresso machine that makes coffee from human souls, artstation



panda mad scientist mixing sparkling chemicals, artstation



a corgi's head depicted as an explosion of a nebula



a dolphin in an astronaut suit on saturn, artstation



a propaganda poster depicting a cat dressed as french emperor napoleon holding a piece of cheese



a teddy bear on a skateboard in times square

01



DALL • E



What is DALL • E?

◆ 一個句子可以產生多種不同影像

An astronaut riding a horse in photorealistic style



[Source](#)

01

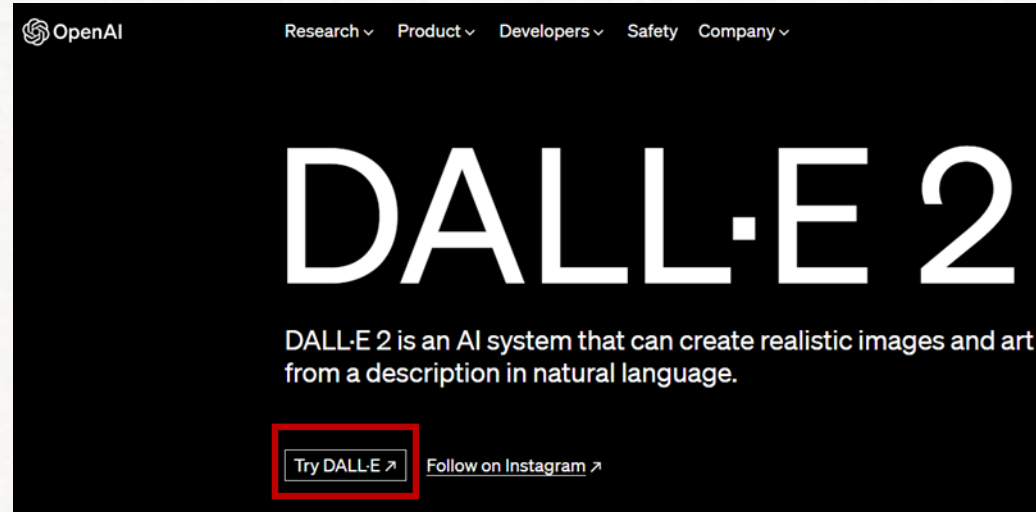


DALL • E



How to try DALL • E?

◆ [DALL•E 2](#)



Start with a detailed description [Surprise me](#)

An Impressionist oil painting of sunflowers in a purple vase...

Generate

Or, upload an image to edit

 0

Buy credits

[Learn more about credits](#)

第一次使用會有50點

01




DALL • E



How to try DALL • E?

◆ 沒點數無法產生

Start with a detailed description [Surprise me](#)

 You're out of credits

An astronaut riding a horse in photorealistic style

Generate

◆ 可以使用Surprise me自動產生句子

 DALL-E History Collections



Start with a detailed description [Surprise me](#)

a fortune-telling shiba inu reading your fate in a giant hamburger, digital art

Generate

Or, [upload an image](#) to edit

01

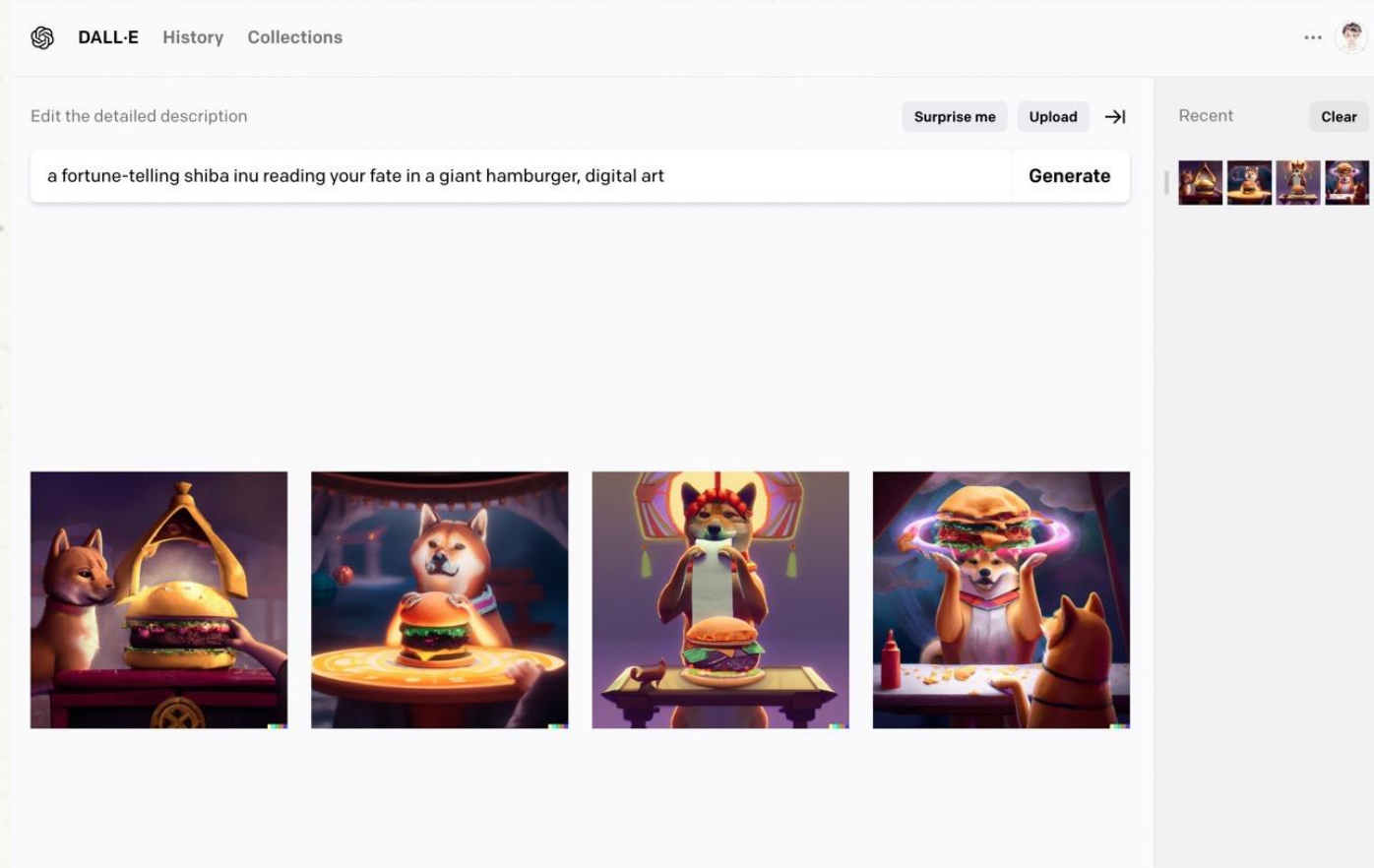


DALL • E



How to try DALL • E?

◆ 花費一點可以產生四張圖片



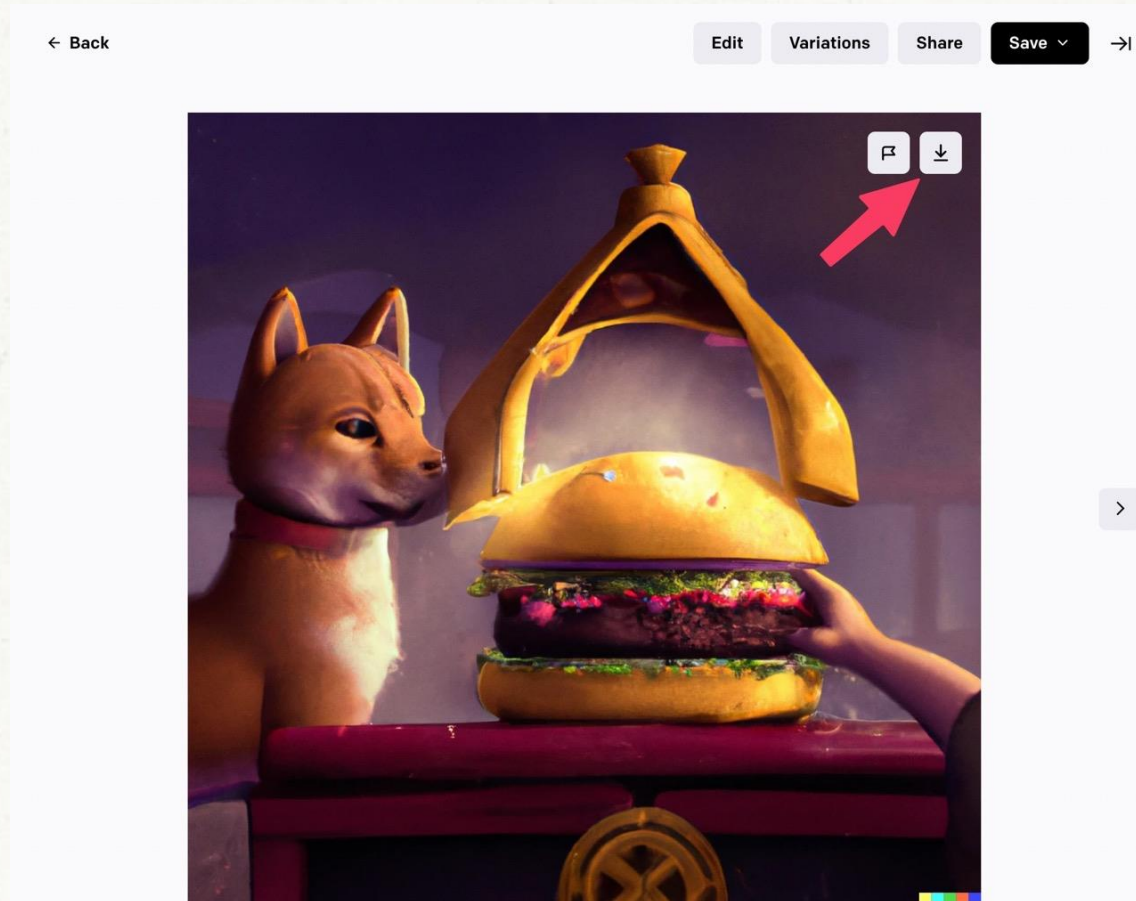
01

DALL • E



How to try DALL • E?

◆ 可下載儲存



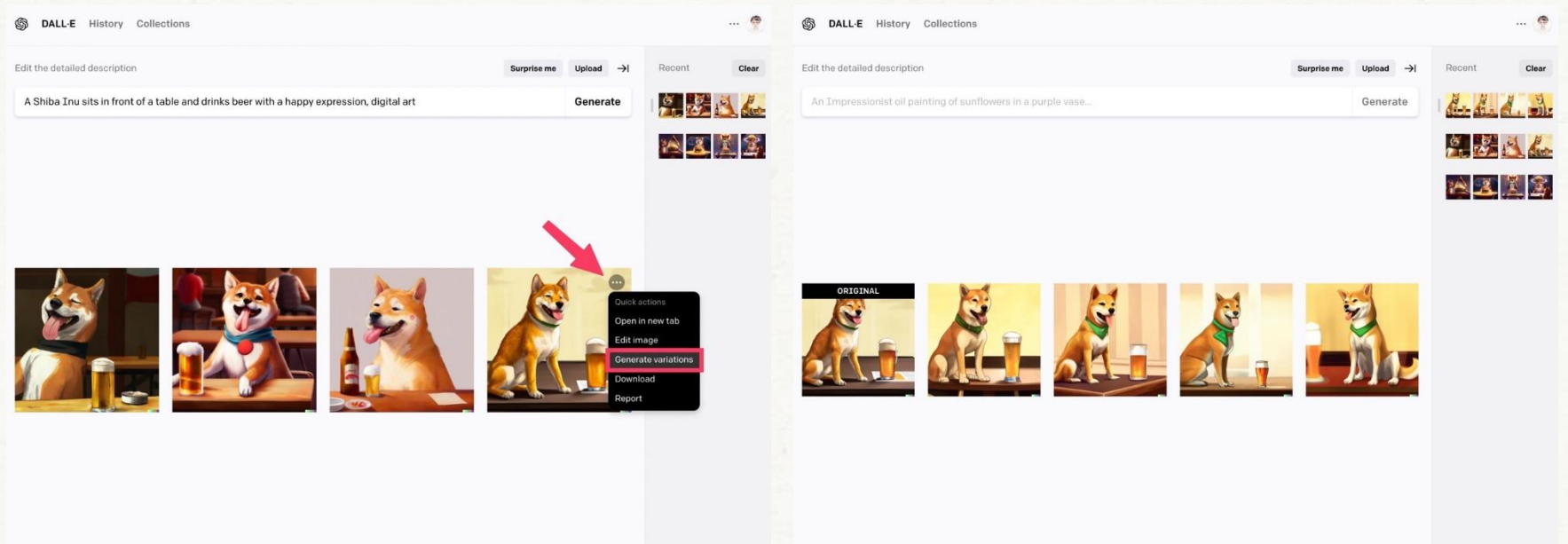
01

DALL • E



How to try DALL • E?

- ◆ 如果覺得某張圖片接近自己想要的，可以點選圖片並選擇 Generate variations，系統會以選擇的圖片產生其他影像



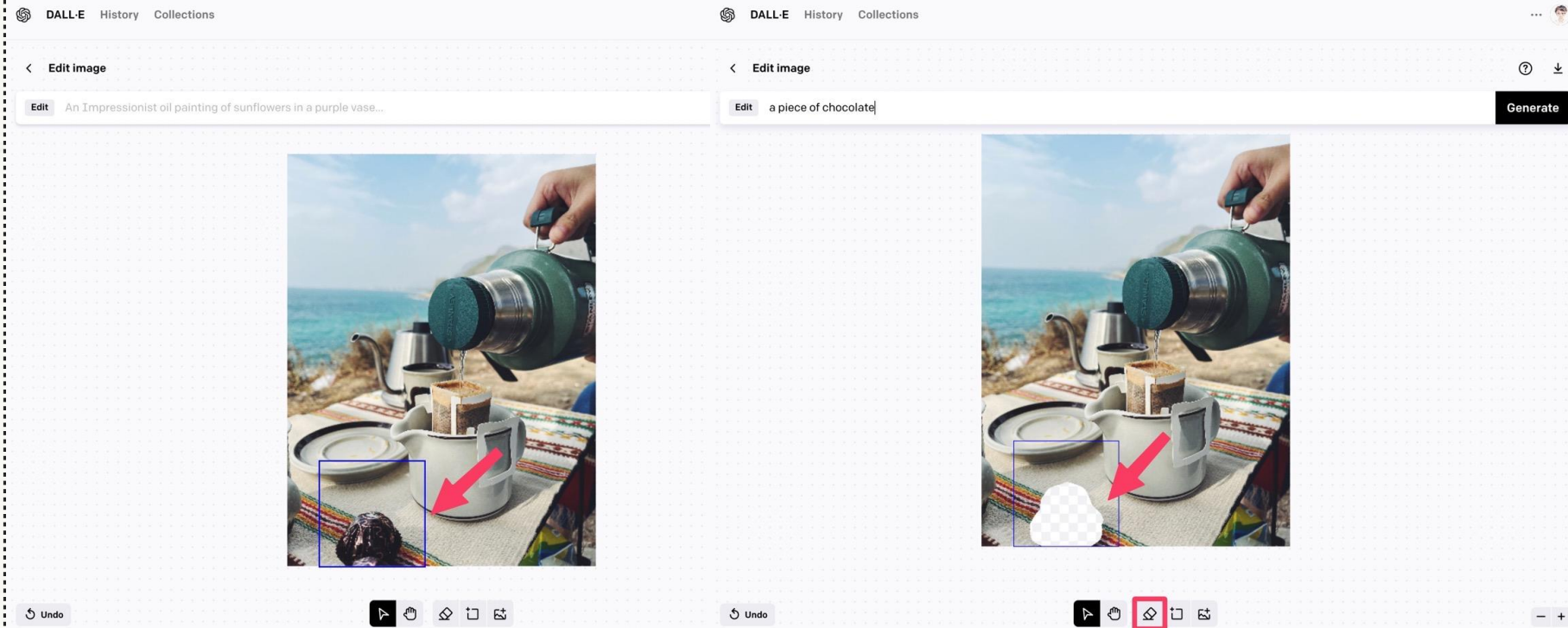
01

DALL • E



How to try DALL • E?

◆ 可對圖片做細部編輯



01

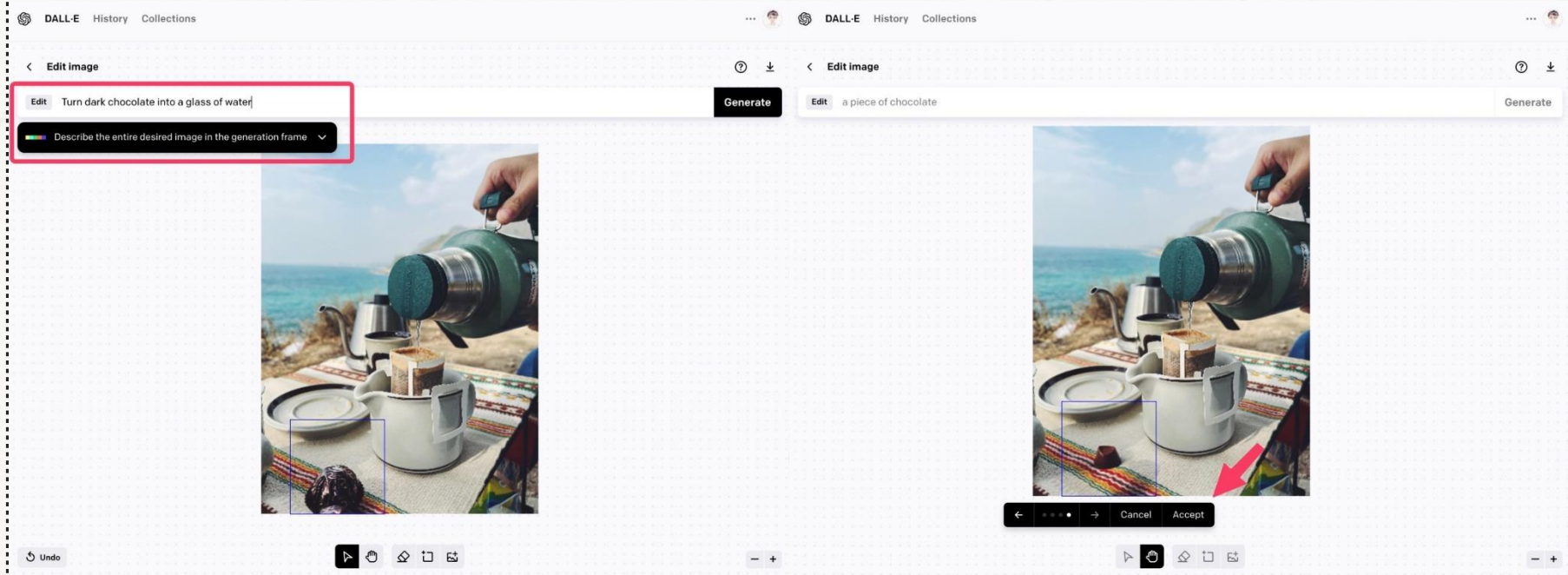


DALL • E



How to try DALL • E?

◆ 可對圖片做細部編輯



01

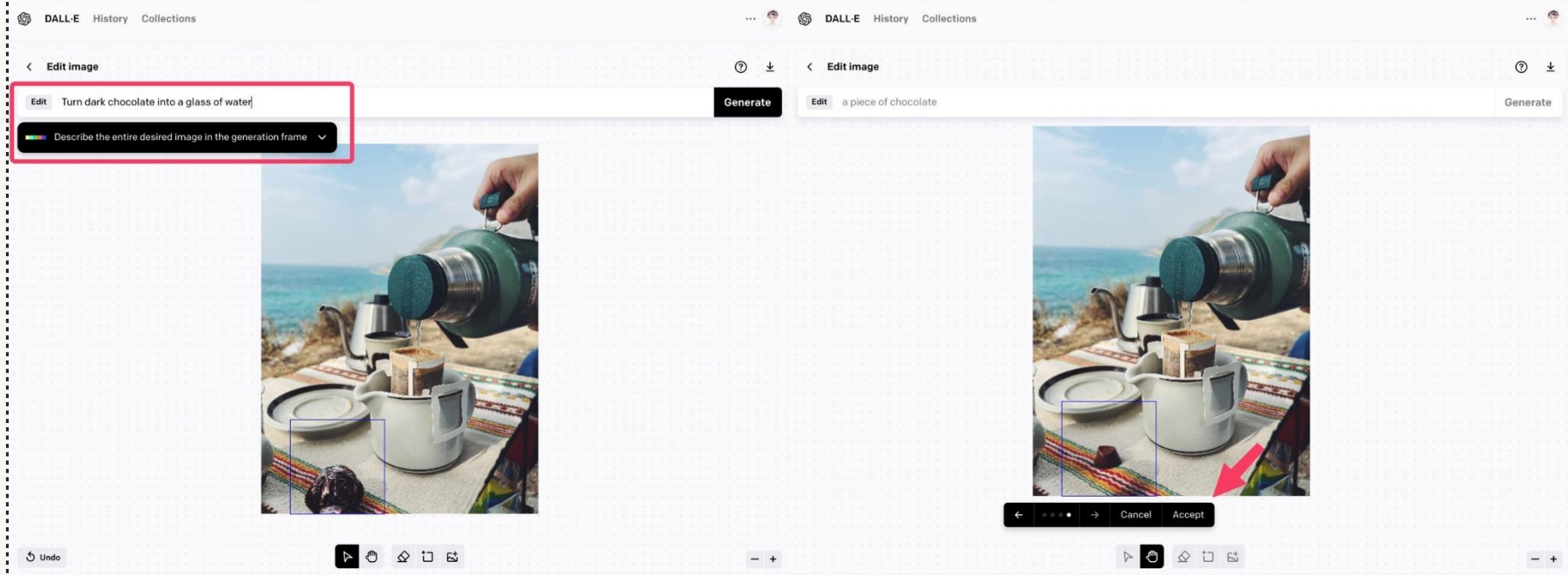


DALL • E



How to try DALL • E?

◆ 可對圖片做細部編輯



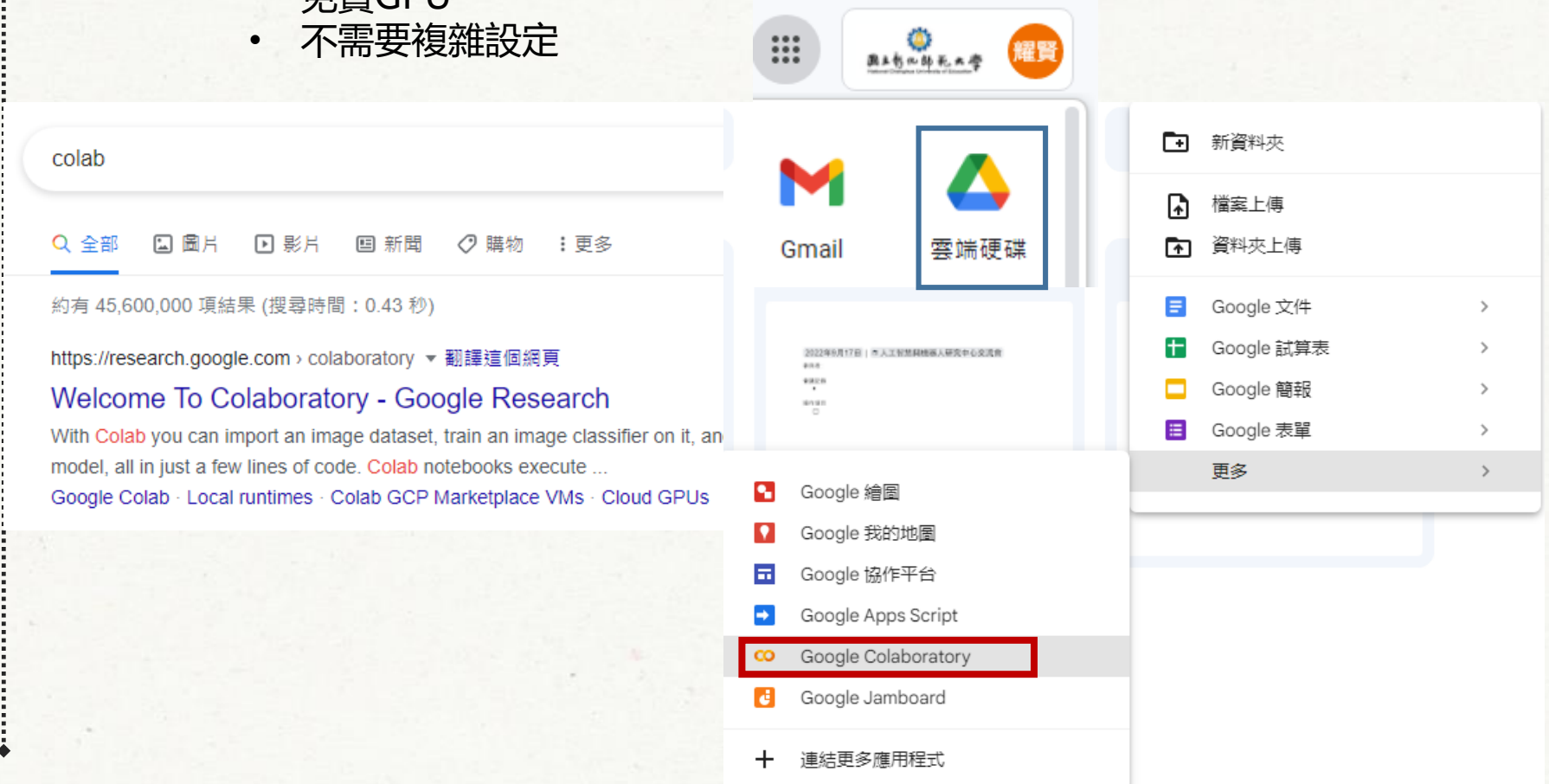
02

CoLab



What is CoLab?

- ◆ Colaboratory是Google提供使用者一個可執行Python的平台
 - 免費GPU
 - 不需要複雜設定



The screenshot shows a Google search for 'colab' with approximately 45,600,000 results. The top result is 'Welcome To Colaboratory - Google Research', which includes a brief description of the platform and links to 'Local runtimes', 'Colab GCP Marketplace VMs', and 'Cloud GPUs'. Overlaid on the search results is a Google Assistant-style app drawer. The drawer includes icons for Gmail, 雲端硬碟 (Google Drive), and a list of Google services: Google 繪圖, Google 我的地圖, Google 協作平台, Google Apps Script, Google Colaboratory (highlighted with a red box), Google Jamboard, and 連結更多應用程式. On the right side of the drawer, there are options for file management: 新資料夾, 檔案上傳, 資料夾上傳, Google 文件, Google 試算表, Google 簡報, Google 表單, and 更多.

02



CoLab



What is CoLab?

- ◆ Colab Demo: <https://reurl.cc/1oZOQQ>
 - Change runtime
 - Connect Colab with your google drive

02

CoLab



What is CoLab?

- ◆ Change runtime
 - 免費GPU資源

The screenshot shows the '執行階段' (Execution) menu in CoLab. The menu items and their keyboard shortcuts are:

執行階段	工具	說明	已儲存所有變更
全部執行		Ctrl+F9	
執行上方的儲存格		Ctrl+F8	
執行聚焦的儲存格		Ctrl+Enter	
執行選取範圍		Ctrl+Shift+Enter	
執行下方的儲存格		Ctrl+F10	
中斷執行		Ctrl+M I	
重新啟動執行階段		Ctrl+M .	
重新啟動並執行所有儲存格			
恢復原廠設定的執行階段			
變更執行階段類型			
管理工作階段			
查看執行階段記錄			

The screenshot shows the '筆記本設定' (Notebook Settings) dialog box. The '硬體加速器' (Hardware Accelerator) section is expanded to show the 'GPU' option selected. The text below the dropdown reads: 'CoLab 的最大效益，請避免在不必要的情況下使用 GPU。' (For the maximum benefit of CoLab, please avoid using GPU when not necessary.) There is also a checkbox for '儲存這個筆記本時，忽略程式碼儲存格輸出內容' (When saving this notebook, ignore code cell output content).

The screenshot shows the CoLab interface with a status bar at the top indicating '正在連線' (Connecting). Below the status bar, there are icons for 'RAM' and '硬碟' (Disk) usage, and a '編輯' (Edit) button. The bottom of the interface shows a toolbar with various icons for navigation and editing.

02



CoLab



What is CoLab?

- ◆ Change runtime
 - 測試GPU資源

```
import torch
torch.cuda.is_available() #確認是否GPU有啟用，若有則輸出True
```



```
import torch
torch.cuda.is_available() #確認是否GPU有啟用，若有則輸出True
```

✓
4
秒



```
import torch
torch.cuda.is_available() #確認是否GPU有啟用，若有則輸出True
```

True

02



CoLab



What is CoLab?

- ◆ Change runtime
 - 測試GPU資源

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```



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import torch
torch.cuda.is_available() #確認是否GPU有啟用，若有則輸出True
```

✓
4
秒



```
import torch
torch.cuda.is_available() #確認是否GPU有啟用，若有則輸出True
```

True

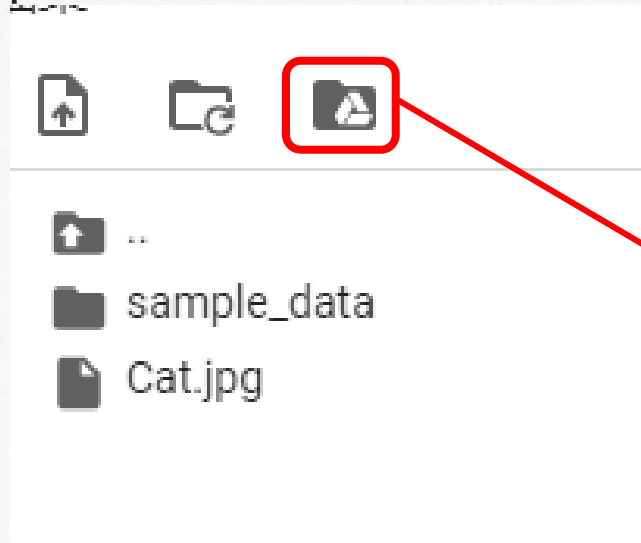
02

CoLab



What is CoLab?

- ◆ Connect CoLab with your google drive
 - 因為CoLab是免費資源，若沒連結至雲端硬碟，斷線後所有程式執行時所需的資料都會消失



```
from google.colab import drive #import library  
drive.mount('/content/drive', force_remount=True)
```

02



CoLab



DALL•E in CoLab

◆ [DALL•E Sample](#)

