

第 10 章 CHAPTER 10 搜尋使用者體驗革命：搜尋 UI 中的 LLM AI Search UX Revolution: LLM AI in Search UIs

在前幾章中，我們著重於 Copilot、報告和進階 LLM 模式。希望您和我一樣對法學碩士的強大工具以及這項新技術帶來的巨大影響感到興奮。為了讓它明白這一點，在本章中，我將討論法學碩士如何不可逆轉地改變搜尋 UI 的使用者體驗設計。

In the previous chapters, we focused on Copilot, reporting, and advanced LLM patterns. Hopefully, you are feeling as excited as I am about just how powerful a tool LLMs are and how much this new technology brings to the table. To drive it home, in this chapter I will discuss how LLMs are irrevocably changing the UX design of search UIs.

搜尋的現狀

The Current State of Search

搜尋 UI 的現狀對於當今大多數網路使用者來說應該相當熟悉。我們基本上有兩種方法：我們稱它們為“谷歌”和“亞馬遜”。

The current state of search UI should be quite familiar to most of today's Internet users. We basically have two approaches: let's call them “Google” and “Amazon.”

谷歌搜索

Google Search

作為一個非常簡化的解釋，當您為用戶提供一個大而友好的搜索框並允許他們輸入他們喜歡的任何內容時，Google 搜索就是您得到的。然後，搜尋引擎魔術對查詢執行模糊邏輯匹配，嘗試匹配一段內容的元資料和關鍵字同義詞。產生的匹配按相關性和“權威性”（從其他權威網站到該內容的鏈接數量）進行排序。

As a very simplified explanation, Google Search is what you get when you give users a large, friendly search box and allow them to type in whatever they like. The search engine magic then performs a fuzzy logic match on the query, trying to match synonyms of the metadata and keywords of a piece of content. The resulting matches are sorted by relevance and “authority”—the number of links from other authoritative sites to this piece of content.

谷歌類型的搜索包括“答案”，即對特定問題的權威答案，例如來自權威來源的“澳大利亞首都是哪裡？”

The Google-type searching includes “answers,” authoritative answers to a specific question such as “What is the capital of Australia?” sourced from authoritative sources (see Figure 10.1).

這種類型的搜尋 UI

也包括常見使用案例的消歧義，例如查詢「老虎」（Syberian、Woods、Endangered 等）。搜索 UI 在很大程度上依賴於自動完成、自動更正和其他技巧，以確保以最少的麻煩返回最佳答案。這類服務的主要應用是快速找到一些特定類型的可靠且權威的內容。

This type of search UI also includes disambiguation for common use cases such as the query “tiger” (Syberian, Woods, Endangered, etc.). The search UI leans heavily on auto-complete, autocorrect, and other tricks to make sure the best answer is returned with a minimum of fuss. The primary application for this type of service is to quickly find a few pieces of reliable and authoritative content of specific type.

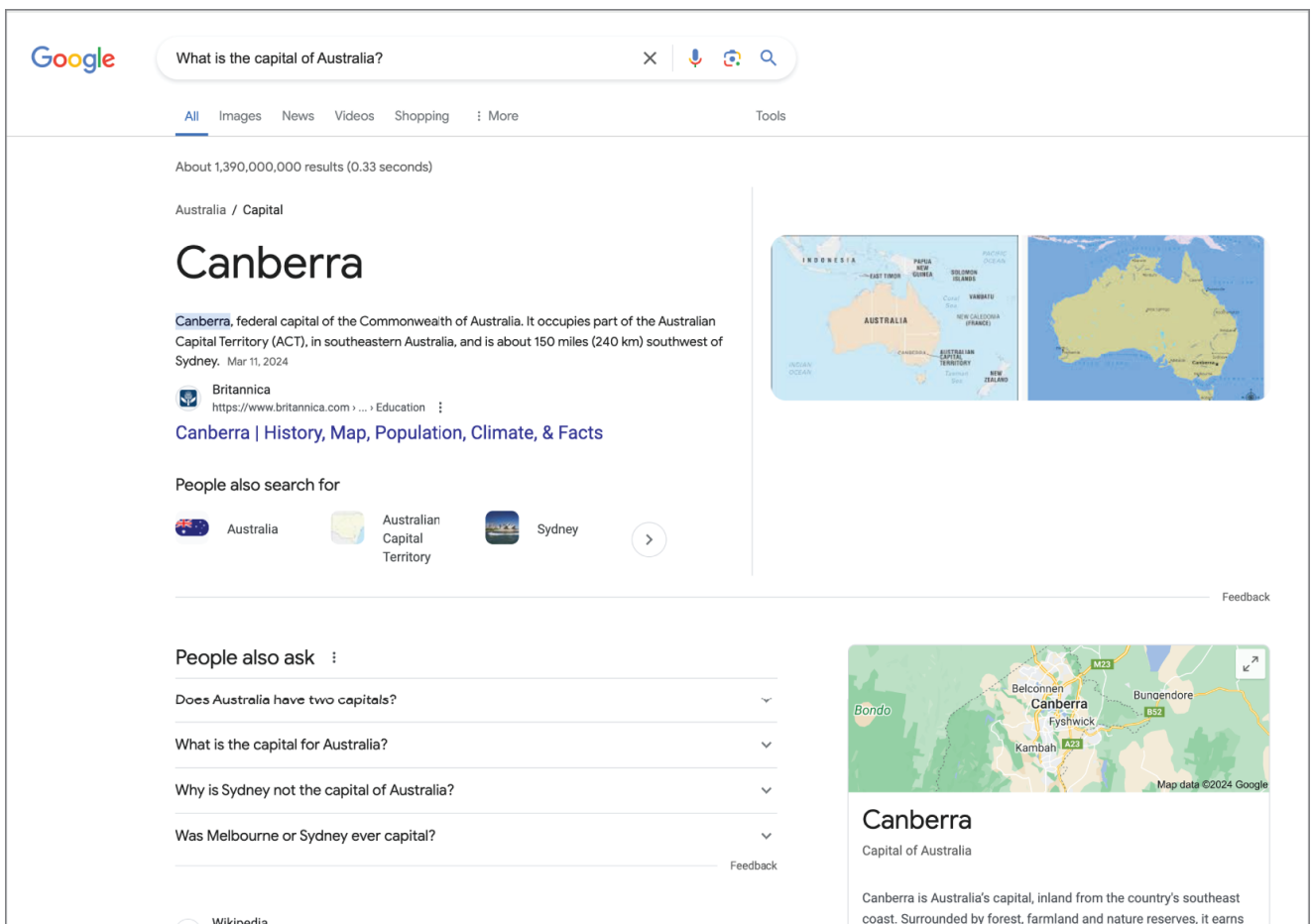


圖 10.1 Google 搜尋與答案

Figure 10.1 Google Search with answers

資源：谷歌

Source: Google

亞馬遜搜索

Amazon Search

與谷歌搜索相比，亞馬遜搜索是電子商務的支柱。Amazon Search 是當您完善搜索以尋找要購買、訪問、消費或觀看的東西時所獲得的。這種類型的搜尋 UI 首先具有切面特徵，這是 Google 搜尋中明顯缺乏的功能。就像菱形上的刻面一樣，搜尋刻面是搜尋查詢的各種角度，代表使用者可以縮小查詢範圍的便利篩選器。例如，執行 Nike 等查詢會顯示 Department、Review Stars、Delivery Type 和 Price Range 等多面向（請參閱圖 10.2）。

In contrast to Google Search, Amazon Search is the backbone of e-commerce. Amazon Search is what you get when you perfect your search in service of finding something to buy, visit, consume, or watch. This type of search UI is characterized first and foremost by facets, a feature conspicuously absent from Google Search. Just like facets on a diamond, search facets are various angles of the search query and represent convenient filters by which users can narrow down the query. For example, running a query such as Nike would surface facets such as Department, Review Stars, Delivery Type, and Price Range (see Figure 10.2).

「不可怕的謎團」問題

The “Mysteries That Are Not Scary” Problem

不幸的是，現有的搜索 UI 都無法很好地處理定義不當或“負面”查詢。Jared Spool 介紹了此類查詢的典型示例：“不可怕的謎團”（見圖 10.3）。由於多種原因，找到此類查詢的答案對人類來說非常容易，但對於傳統搜索引擎來說尤其困難。

Unfortunately, neither of the existing search UIs does a good job with poorly defined or “negative” queries. The quintessential example of such a query was introduced by Jared Spool: “Mysteries That Are Not Scary” (see Figure 10.3). For many reasons, finding answers to queries of

this type is quite easy for humans but is particularly difficult for conventional search engines.

The screenshot displays the Amazon search interface for the query "nike". At the top, the Amazon Prime logo and delivery location (Pleasanton 94566) are visible. The search bar contains "nike" and shows a search icon. Navigation links include "All", "Medical Care", "Prime Video", "Household, Health & Baby Care", "Pharmacy", "Livestreams", "Amazon Home", "Amazon Business", "Coupons", "Buy Again", "Subscribe & Save", "Amazon Basics", and "Tonight: Tszyu vs. Fundora".

Below the search bar, it indicates "1-48 of over 80,000 results for 'nike'" and a "Sort by: Featured" dropdown. On the left side, there are several filter sections:

- Explore Related Products:** Lists items like "nike shoes men", "nike shirt", "nike hoodie", "nike shorts", and a "See more" link.
- Delivery:** Options for "All Prime", "Today by 10PM", and "Overnight by 8AM".
- Delivery Day:** Options for "Get It Today" and "Get It by Tomorrow".
- Prime Try Before You Buy:** A checkbox option.
- More-sustainable Products:** A checkbox for "Climate Pledge Friendly".
- Department:** A list of categories including "Clothing, Shoes & Jewelry", "Men's Activewear", "Men's Team Sports Shoes", "Women's Activewear", "Men's Running Shoes", "Women's Fashion Sneakers", "Men's Running Clothing", "Women's Team Sports Shoes", "Men's Athletic Shoes", "Women's Athletic Shoes", "Girls' Athletic Shoes", "Boys' Athletic Shoes", "Girls' Activewear", "Boys' Activewear", and "Women's Clothing".
- Customer Reviews:** A star rating filter with "Up" and "Down" arrows.
- Amazon Fashion:** A checkbox for "Our Brands" and "Premium Brands", and a "Top Brands" section.
- Brands:** A list of brands including Nike, adidas, Under Armour, New Balance, PUMA, Tommy Hilfiger, and Calvin Klein, with a "See more" link.
- Price:** A range filter from "Up to \$25" to "\$200 & above", with "Min" and "Max" input fields and a "Go" button.
- Deals & Discounts:** A checkbox for "All Discounts" and "Today's Deals".
- New Arrivals:** A filter for "Last 30 days" and "Last 90 days".
- Business Type:** A checkbox for "Small Business".
- International Shipping:** A checkbox for "International Shipping Eligible".
- Amazon Global Store:** A checkbox for "Amazon Global Store".
- Seller:** A checkbox for "Plain Gear" and "NATURAL SHOES".

The main content area features a "Shop Our Favorite Sneaker Styles" banner with a "Shop Stadium Goods" link. Below this, the "Results" section displays a grid of product listings. Each listing includes an image, a title, a price, a star rating, and a "bought in past month" count. Some listings also feature "Sponsored" or "Overall Pick" badges. The products shown include:

- Nfinity Vengeance Cheer Shoe - Women & Youth Competition...:** \$129.99, 100+ bought in past month.
- M Menmentings Men's Outdoor Jogging Casual Pants Slim Joggers Workout...:** \$23.99, 200+ bought in past month.
- See Kai Run Boy's Stevie II Sneaker:** \$51.99, 413 bought in past month.
- Clotho Co. Workout Shirts for Men, Dry Fit Shirts for Men, Gym Shirts Men...:** \$18.88, 4,580 bought in past month.
- Nike Men's Basketball Shoe:** \$115.00, 400+ bought in past month.
- Nike Performance Cushion Crew Socks with Band (6 Pairs):** \$31.98, 16,244 bought in past month.
- Nike Men's Park Short Sleeve T Shirt:** \$27.08, 2,471 bought in past month.
- Nike Club Men's Training Joggers:** \$47.62, 182 bought in past month.
- Nike Sportswear Men's Pullover Club Hoodie:** \$49.99, 711 bought in past month.
- Nike mens Blazer Mid 77 Vintage:** \$81.00, 2,647 bought in past month.

At the bottom, a "New arrivals" section shows items added in the past 60 days, including a grey hoodie, a black sneaker, a blue long-sleeve shirt, black leggings, and another black sneaker.

圖 10.2 具有 Facet 的 Amazon Search

Figure 10.2 Amazon Search with facets

資源：亞馬遜

Source: Amazon

一項挑戰是典型的 Google 搜尋引擎尋找匹配項而不是不匹配項。因此，人們可以假設一段內容可以被標記為“可怕”，然後標記為“可怕”的內容將從結果集中排除。當然，這意味著必須有人先發制人地以這種方式標記所有內容，這通常是不切實際的。

One challenge is that typical Google Search engines look for matches rather than mismatches. So, one can potentially assume that a piece of content can be tagged as “scary,” and then the content marked “scary” would be excluded from the result set. Of course, this means that someone has to have the preemptive initiative to mark all the content in this way, which is usually impractical.

這個問題經常由有進取心的人類解決，他們為所有事物創建指南，包括不可怕的謎團。

This issue is frequently solved by enterprising humans who create guides for everything, including non-scary mysteries.

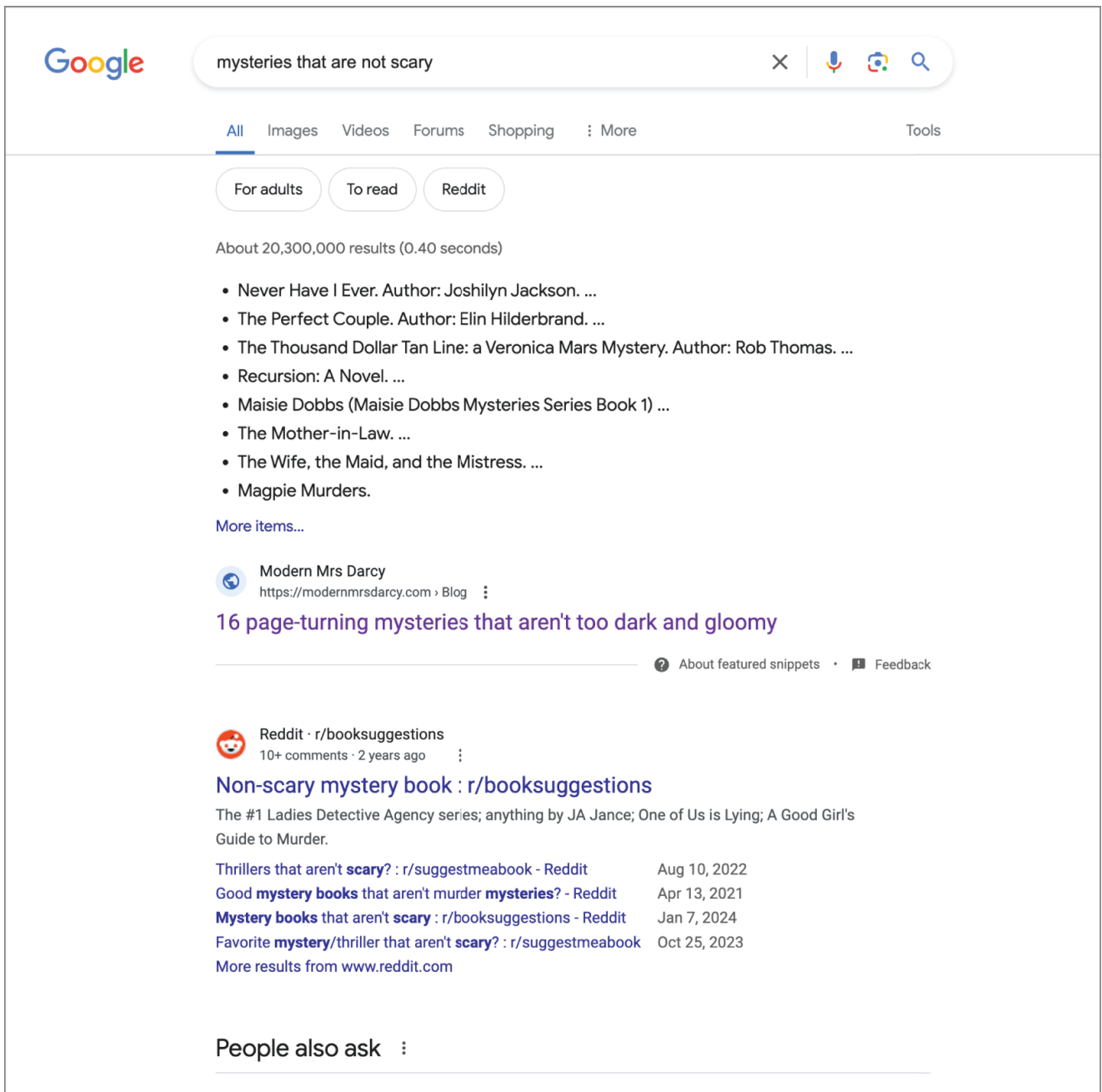


圖 10.3 Google 搜尋「不可思議的謎團」會傳回人造指南

Figure 10.3 Google Search for “Mysteries That Are Not Scary” returns a human-made guide

資源：谷歌

Source: Google

雖然看起來 Google 只是神奇地想出了答案，但實際上它只是引用了來自單一「權威」來源的指南：<https://modernmrsdarcy.com/page-turning-mysteries-hopeful-not-dark-gloomy>（見圖 10.4）。

While it may look as though Google just magically came up with the answer, it ' s actually just quoting a guide from a single “ authoritative ” source:

<https://modernmrsdarcy.com/page-turning-mysteries-hopeful-not-dark-gloomy/> (see Figure 10.4).

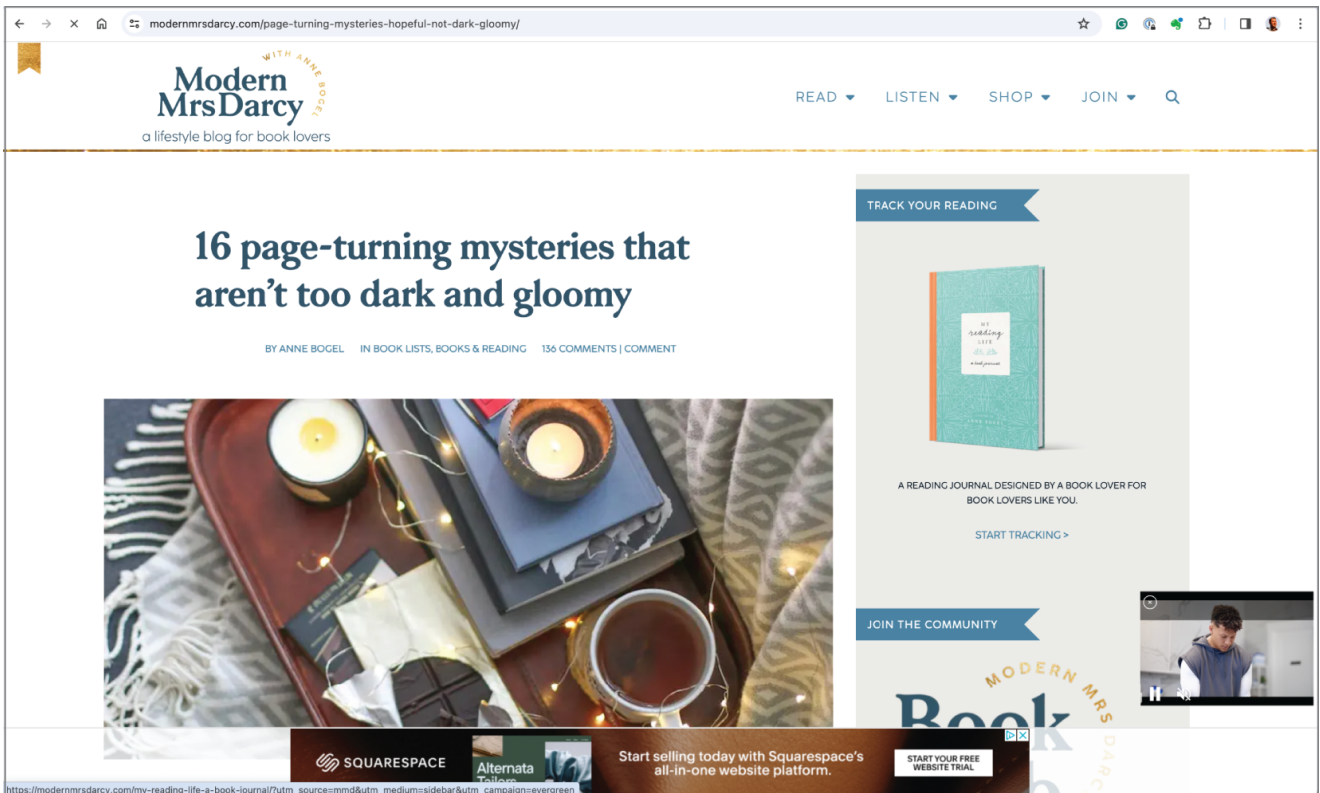


圖 10.4 非恐怖謎團的「權威來源」

Figure 10.4 “ Authoritative source ” for non-scary mysteries

來源： <https://modernmrsdarcy.com> 現代達西夫人

Source: <https://modernmrsdarcy.com> Modern Mrs Darcy

谷歌在將“不可怕”翻譯成“不黑暗和陰鬱”方面做得不錯，儘管它並不完全匹配。從這一點開始，典型的人類搜索策略可能是類似“珍珠生長”的東西，人類搜索者將查看文章並仔細閱讀評論和參考文獻以找到類似的材料。（這是 Peter Morville 的名著《Search Patterns： Design for Discovery [O'Reilly Media， 2010] 中描述的常見搜尋策略之一。正如彼得所寫，“我們發現的會改變我們所尋求的”——這是最喜歡的名言之。

Google did a decent job of translating “ Not Scary ” into “ Not Dark and Gloomy, ” although it ' s not the exact match. The typical human search strategy from this point might be something like “ Pearl Growing, ” where the human searcher would look at the article and peruse the comments and

references to find similar material. (This is one of the common search strategies described in Peter Morville ' s famous book, Search Patterns: Design for Discovery [O ' Reilly Media, 2010].) As Peter wrote, “ What we find changes what we seek ” —one of my favorite quotes.

傳統上，亞馬遜搜索引擎在此類“模糊匹配查詢”方面的表現甚至比谷歌搜索引擎還要差。部分問題是內容庫存受限;亞馬遜只包含書籍和電影，不包含有關內容恐怖性的指南。另一個挑戰是控制詞彙量。為了讓 Amazon Search UI 如預期般運作，理想情況下應將「可怕性」等級設定為搜尋方面。這更不可能是實用的方法，因為人們無法預測搜索者將請求的所有類型的 Facet，並且需要解釋的複雜 Facet 比元數據標籤更難設置。因此，我們在圖 10.5 中得到了大雜燴（是的，“大雜燴”絕對是一個科學術語）。

Amazon Search engines traditionally do even worse than Google Search engines for these types of “ fuzzy match queries. ” Part of the problem is constrained content inventory; Amazon only contains books and movies, not guides on the scariness of the content. The other challenge is controlled vocabulary. For the Amazon Search UIs to work as intended, the level of “ scariness ” should be ideally set up as a search facet. This is even less likely to be the practical approach, as one cannot predict all the types of facets that will be requested by the searchers, and complex facets that are subject to interpretation are much harder to set up than metadata tags. Thus, we get the hodgepodge in Figure 10.5 (and yes, “ hodgepodge ” is absolutely a scientific term).

便條

NOTE

圖 10.5 經過壓縮和編輯，用於演示並跳過贊助內容。

Figure 10.5 is condensed and edited for demonstration and to skip the sponsored content.

結果集一開始隨機引用完全未知的“奧馬利一家”，然後繼續到史酷比，這絕對符合要求。然後是恐怖電影，這可能是一個不錯的選擇。

The result set starts out randomly referencing the completely unknown “ O ' Malleys ” and then proceeding to Scooby Doo, which definitely fits the bill. Then comes Scary Movie, which is probably a decent pick.

然後事情開始瓦解。

Then things begin to unravel.

我們有一個隨機的非神秘標題：伯尼·麥克傳記排名第三。從這裡開始，事情發生了明顯的黑暗轉變，貝茨汽車旅館（有史以來最恐怖的電影之一的衍生作品）、微笑（非常可怕）、玉米之子（同上），然後終於來到了它（看完之後我自己也難以入睡……幾個星期——我仍然拒絕打開幸運餅乾）。我可以想像有人在尋找一個漂亮舒適的赫爾克里·波洛 PBS 懸疑片，而是依偎在它身邊……哇啊啊啊！

We have a random non-mystery title: a Bernie Mac biography coming at number 3. From here, things take a decidedly darker turn with Bates Motel (the spin-off of one of the most legitimately terrifying movies ever made), Smile (very scary), Children of the Corn (ditto), then finally coming to It (following the viewing of which I myself had trouble sleeping ... for a few weeks—and I still refuse to open fortune cookies). I can just imagine someone looking for a nice cozy Hercule Poirot PBS mystery, cuddling up with It instead ... WHAAAAA!

因此，最重要的是，對人類來說可能容易的事情在歷史上對計算機來說卻很困難。

So, the bottom line is that things that might be easy for humans are historically difficult for computers.

這並不神秘。

No mystery there.

但劇情即將變得複雜。

But the plot is about to thicken.

進入法學碩士

Enter LLMs

多年前，我在紐約有一個絕佳的機會，為美聯社（AP）圖片網站設計了一個新的 UI：<https://newsroom.ap.org>。這是我作為用戶體驗設計顧問有機會參與的最令人滿意的項目之一。我們的想法是讓 AP 走在用戶體驗的最前沿，天哪，我和我的團隊做到了！

Years ago, I had a fantastic opportunity in New York to design a new UI for the Associated Press (AP) Images site: <https://newsroom.ap.org>. It was one of the most satisfying projects I had a chance to work on as a UX design consultant. The idea was to put AP on the cutting edge of user experience, and boy, did my team and I deliver!

如今，AP 再次走在搜尋技術的前沿：它們是最早使用 LLM 進行搜尋的專業網站之一。

Today AP is once again on the cutting edge of search technology: They are one of the first specialty sites to use LLMs for search.

第一次搜尋我們最喜歡的查詢「不可怕的謎團」只會產生一個空的結果集。然而，AP 也提供了 AI 驅動的結果的預覽（見圖 10.6）。

The first search for our favorite query, Mysteries That Are Not Scary, yields little more than an empty result set. However, AP also presents a preview for AI-powered results (see Figure 10.6).

點擊 AI 驅動的搜尋確實載入得更好，向我們展示了印度藏族舞蹈、馬德里的服裝店、波蘭的萬聖節裝飾品和倫敦的夏洛克福爾摩斯博物館的圖像，如圖 10.7 所示。

Clicking AI-Powered Search does load better, showing us images of Indian Tibetan Dance, Costume Shops in Madrid, Halloween decorations in Poland, and a Sherlock Holmes Museum in London, as you can see in Figure 10.7.

便條

NOTE

儘管這似乎是一個微小的改進，但它無異於搜尋領域的一場革命。

Although this seems like a tiny improvement, it ' s nothing short of a revolution in search.

1-16 of 360 results for "mysteries that are not scary" Sort by: Featured

- Delivery**
- All Prime
- Department**
- Movies & TV
 - Prime Video
 - Movies & Films
 - TV Shows
 - Kindle Store
 - Kindle eBooks
 - Books
 - Mysteries
 - Occult & Paranormal
 - Paramount+
 - PBS Documentaries
 - See more
- Video Format**
- Prime Video
- Video Genre**
- Action & Adventure
 - Animation
 - Arts, Culture & Entertainment
 - Comedy
 - Documentary
 - Drama
 - Fantasy
 - Horror
 - Kids & Family
 - LGBTQ+
 - Music Videos & Concerts
 - Romance
 - See more
- Movie & TV Original Language**
- English
 - French
 - Spanish
- Subtitles & Closed Captioning**
- Arabic
 - Chinese
 - Dutch
 - English
 - French
 - German
 - Hindi
 - Concerts & Performances
 - Educational
- Video Length**
- Up to 5 Minutes
 - 6 to 10 Minutes
 - 11 to 20 Minutes
 - 21 to 30 Minutes
 - 31 to 60 Minutes
 - 61 to 90 Minutes
 - More Than 90 Minutes
- Condition**
- New
- Movie & TV Show Release Decade**
- 2020 & Newer
 - 2010 - 2019
 - 2000 - 2009
 - 1980 - 1989
- Availability**
- Include Out of Stock
- Discovery+
- Fandor
 - Freevee
 - Gaia
 - MAX
 - MGM+
 - Paramount+
 - PBS Documentaries
 - See more
- Video Format**
- Prime Video
- Video Genre**
- Action & Adventure
 - Animation
 - Arts, Culture & Entertainment
 - Comedy
 - Documentary
 - Drama
 - Fantasy
 - Horror
 - Kids & Family



The O'Malleys:
unraveling the
quirkiest mysteries!

Shop now >



Bearied Treasure (The O'Malley Adventures Book 1)
★★★★☆ 17



Punch Down: From the Shores of Whidbey to the Walla Walla Vineyards (The O'Malley Ad...)
★★★★☆ 6



Tanks: Evil Lurks on Whidbey Island (The O'Malley Adventures Book 6)
★★★★☆ 7

Sponsored

Results



Scooby-Doo, Where Are You: The Complete Third Season

1978 | NR (Not Rated) | CC

★★★★☆ ~ 1,638

Prime Video

From \$1.99 to buy episode
From \$19.99 to buy season
Or \$0.00 with a Boomerang trial on Prime Video Channels

- Starring: Frank Welker, Heather North, Casey Kasem and Nicole Jaffe
- Directed by: Charles Nichols and Alex Lovy



Scary Movie

2000 | R | CC

★★★★☆ ~ 8,366

Prime Video

From \$3.79 to rent
\$14.99 to buy
Or \$0.00 with a Cinemax trial on Prime Video Channels

- Starring: Jon Abrahams, Carmen Electra, Shannon Elizabeth, et al.
- Directed by: Keenen Ivory Wayans



I Ain't Scared of You: A Tribute to Bernie Mac

2012 | NR | CC

★★★★☆ ~ 400

Prime Video

From \$2.99 to rent
From \$8.99 to buy
Or \$0.00 with a ALLBLK trial on Prime Video Channels

- Starring: Bernie Mac, Chris Rock, Samuel L. Jackson, et al.
- Directed by: Robert Small



Bates Motel Season 1

2013 | TV-14 | CC

★★★★☆ ~ 1,499

Prime Video

Watch now

- Starring: Vera Farmiga, Freddie Highmore, Mike Vogel, et al.
- Directed by: Nestor Carbonell, Tucker Gates, Ed Bianchi and Phil Abraham



Smile

2022 | R | CC

★★★★☆ ~ 8,580

Prime Video

Watch now

- Starring: Sosie Bacon, Jessie T. Usher, Kyle Gallner and Kal Penn
- Directed by: Parker Finn



Children of the Corn

1984 | R | CC

★★★★☆ ~ 1,492

Prime Video

Watch now

- Starring: Peter Horton and Linda Hamilton
- Directed by: Fritz Kiersch



Orphan: First Kill

2022 | R | CC

★★★★☆ ~ 4,730

Prime Video

Watch now

- Starring: Isabelle Fuhrman, Rossif Sutherland and Julia Stiles
- Directed by: William Brent Bell



Stephen King, IT!

2016 | NR | CC

★★★★☆ ~ 21,301

Prime Video

Watch now

- Starring: Harry Anderson, Dennis Christopher, Richard Masur, et al.
- Directed by: Tommy Lee Wallace

圖 10.5 亞馬遜搜尋結果的大雜燴「不可怕的謎團」

Figure 10.5 A hodgepodge of Amazon search results for “Mysteries That Are Not Scary”

資源：亞馬遜

Source: Amazon

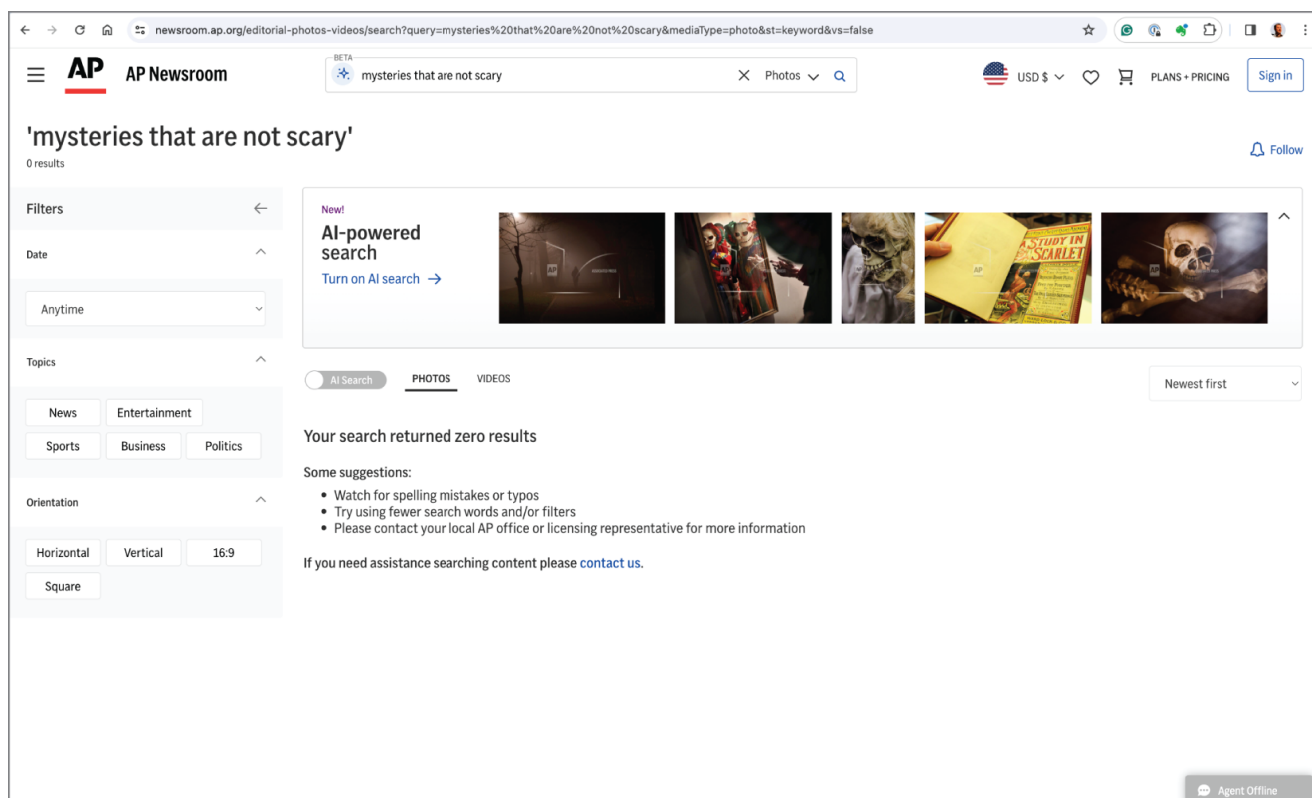


圖 10.6 美聯社圖片「不可怕的謎團」的常規搜尋結果

Figure 10.6 AP Images conventional search results for “Mysteries That Are Not Scary”

來源：美聯社圖片社

Source: AP Images

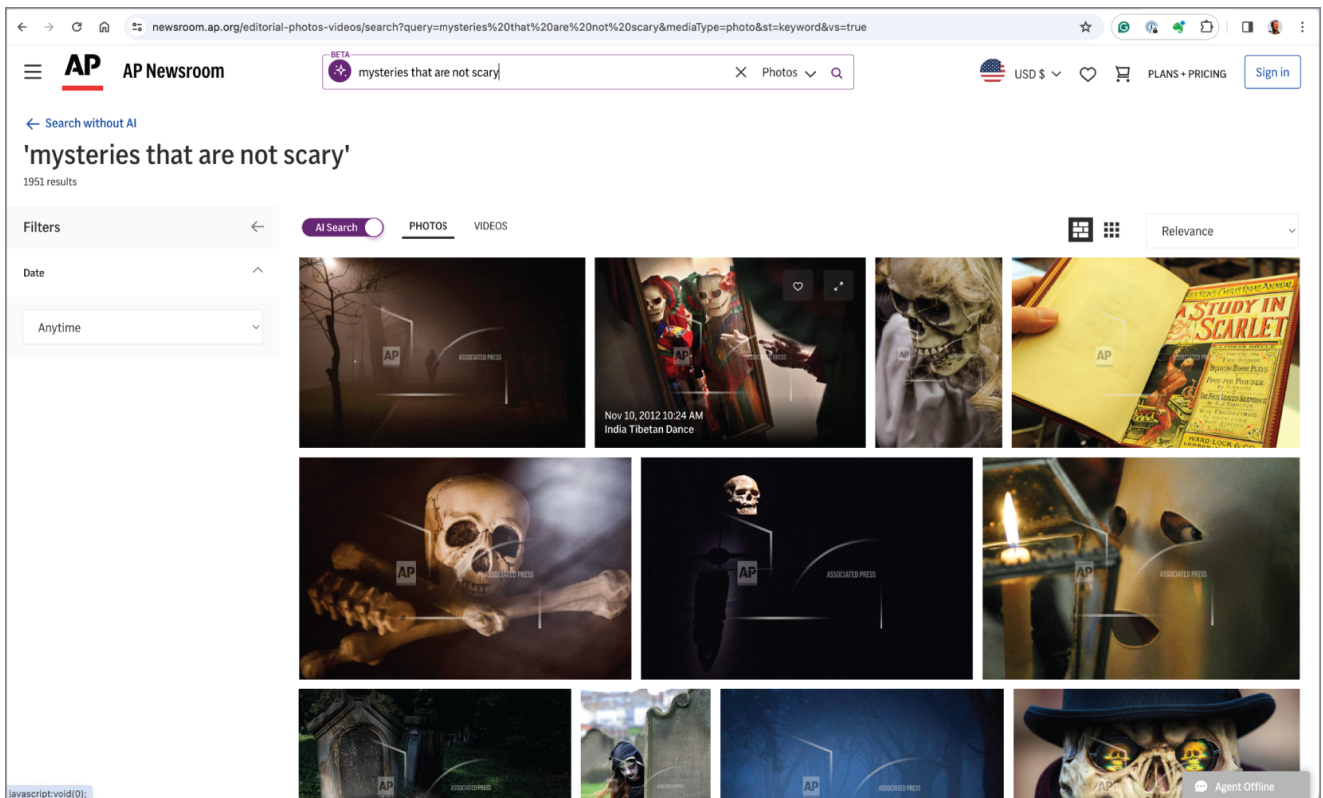


圖 10.7 頭獎：美聯社圖片 AI 對「不可怕的謎團」的結果

Figure 10.7 Jackpot: AP Images AI results for “Mysteries That Are Not Scary”

來源：美聯社圖片社

Source: AP Images

像 ChatGPT 這樣的 LLM 可以毫無問題地解決這個謎語（見圖 10.8）。

LLMs like ChatGPT have no problem solving the riddle (see Figure 10.8).

ChatGPT 甚至會想出完全符合要求的特定電影（見圖 10.9）。

ChatGPT even comes up with specific movies that fit the bill perfectly (see Figure 10.9).

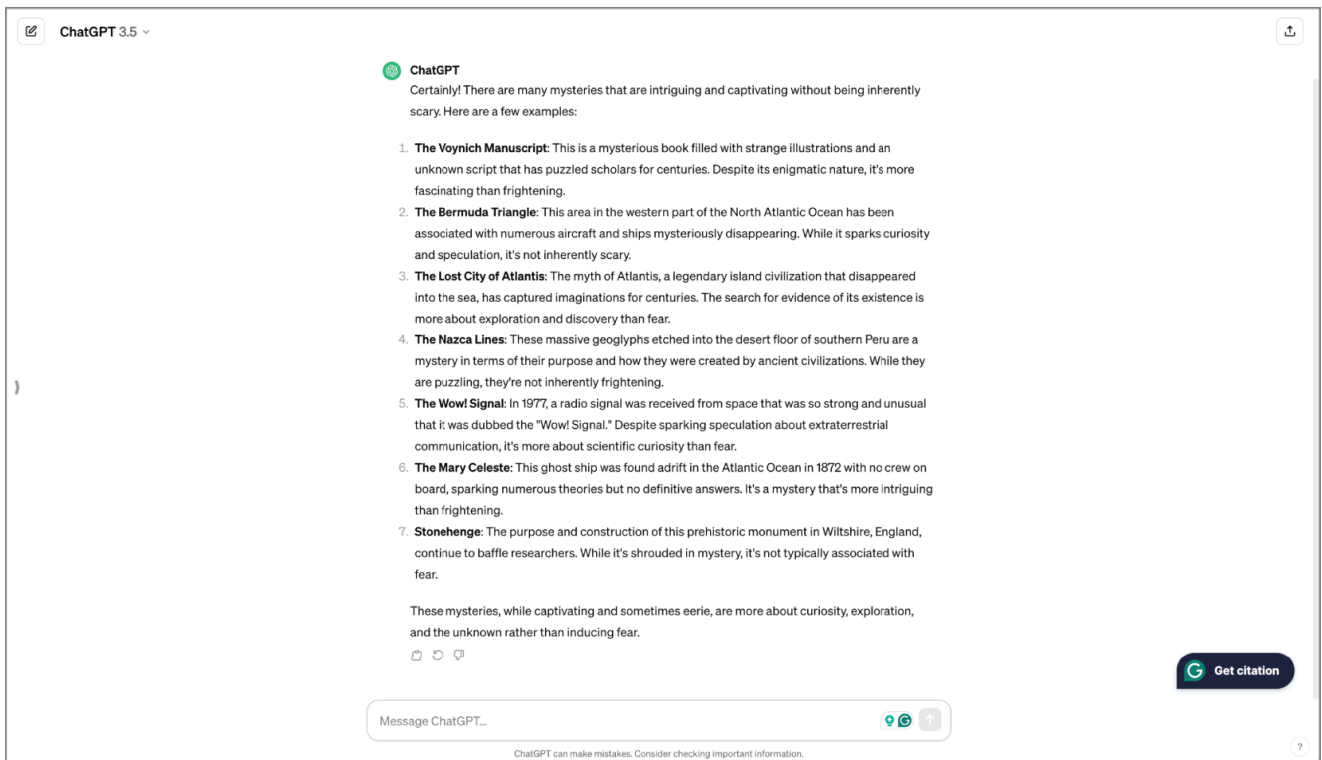


圖 10.8 ChatGPT 對「不可怕的謎團」的結果

Figure 10.8 ChatGPT results for “Mysteries That Are Not Scary”

來源：ChatGPT 中使用 AI 生成

Source: Generated with AI in ChatGPT

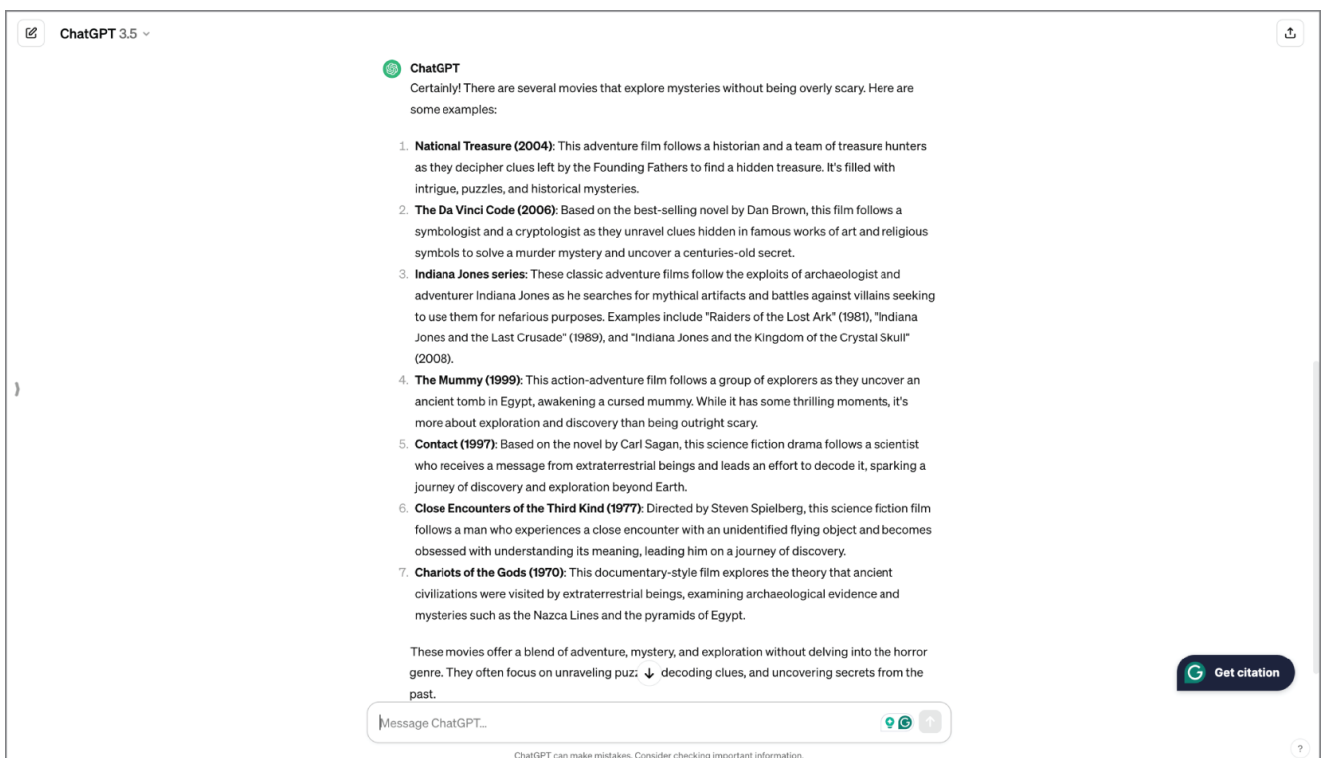


圖10.9 電影《不可怕的謎團》的ChatGPT結果

Figure 10.9 ChatGPT results for movies “ Mysteries That Are Not Scary ”

來源：ChatGPT 中使用 AI 生成

Source: Generated with AI in ChatGPT

而這僅僅是開始。

And this is only the beginning.

很快，您的客戶將需要格式良好的客製化電子商務和內容結果，這些結果會根據您的特定內容進行微調，並針對對他們重要的模糊查詢提供詳細、準確的答案。（我有沒有提到我的第一本書是關於搜索用戶體驗的？它被稱為設計搜索：電子商務成功的用戶體驗策略 [Wiley, 2011]，由無與倫比的彼得·莫維爾（Peter Morville）作序。

Very shortly, your customers will demand well-formed custom e-commerce and content results that are fine-tuned with your specific content and the detailed, accurate answers to fuzzy queries that matter to them. (Did I mention that my first book was on search UX? It ' s called Designing Search: UX Strategies for eCommerce Success [Wiley, 2011] and features a foreword by the incomparable Peter Morville.)

設計練習：設計您自己的 LLM 搜尋 UI

Design Exercise: Design Your Own LLM Search UI

讓我們繼續改進 AI 驅動應用程式的設計，新增 LLM 搜尋，該搜尋借鑒了本章「不可怕的謎團」中的範例。您的客戶可能會在您的應用程式中搜尋是否有類似的「模糊」查詢？集思廣益並勾勒出「模糊」使用者詢問的問題，以及在您的特定使用案例中產生的輸出可能是什麼樣子。考慮以下事項：

Let ' s continue improving the design of our AI-driven application by adding LLM search that draws on the example in this chapter, “ Mysteries That Are Not Scary. ” Is there any similarly “ fuzzy ” query that your customers might be likely to search within your application? Brainstorm and sketch the “ fuzzy ” user asks and what the resulting output might look like in your specific use case. Consider the following:

- 您的傳統搜尋用例更類似於 Google 搜尋或亞馬遜搜尋嗎？Is your conventional search use case more akin to Google Search or Amazon Search?
- LLM AI 輔助會自動啟動嗎？或者，像 AP Images 一樣，您是否需要打開某種開關來將“LLM 搜索”與“常規搜索”分開？Will the LLM AI assist automatically kick in? Or, like AP Images, will you need to flip a switch of some kind to separate the “LLM search” from your “regular search”?
- 「LLM 搜尋」的輸出格式會與您的「一般搜尋」不同嗎？Will the output of the “LLM search” be formatted differently from your “regular search”?
- 如果您使用 Facet，這些 Facet 在 LLM 搜尋中 useful 嗎？If you are using facets, will those facets be useful in the LLM search?

如果您需要靈感，請看以下範例。在完成自己的設計練習之前，不要繼續下一章。

If you need inspiration, look at the following example. Do not proceed to the next chapter until you complete your own design exercise.

設計練習範例：Life Copilot LLM 搜尋

Design Exercise Example: Life Copilot LLM Search

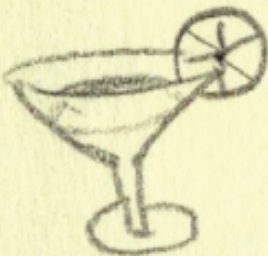

在我們 Life Copilot 應用程式的特定用例中，「LLM 搜尋」和「常規搜尋」幾乎沒有區別，因為使用者介面是相同的——主要是詢問欄和上傳照片功能。我們所有的搜索和分析都將從同一個提示中進行。然而，我們仍然可以透過提出「模糊」問題來展示 LLM 搜尋的令人印象深刻的能力。回想一下，在第 9 章「LLM 設計模式」中，我們向 Life Copilot 詢問了燃燒瓶配方，它建議使用莫吉托。讓我們考慮一下這個用例的變體：我們的用戶現在正在尋找帶有淡淡酸橙但不含酒精的健康清涼飲料的配方創意——“建議一種帶有酸橙的健康雞尾酒配方”。基於 LLM 的搜尋可以透過尋找一些食譜來協助使用者完成這種模糊查詢嗎？完全！（見圖 10.10）。

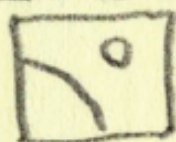
In our specific use case for the Life Copilot app, there is little to distinguish the “LLM Search” from the “regular search” because the UI is the same—mainly the Ask bar and the Upload Photo functionality. All of our searching and analysis will take place from the same prompt. However, we can still demonstrate the impressive capability of the LLM search by asking a “fuzzy” question. Recall that in Chapter 9, “LLM Design Patterns”, we asked the Life Copilot for a Molotov Cocktail recipe and it

suggested a Mojito instead. Let ' s consider a variation on this use case: Our user is now looking for recipe ideas for healthy refreshing drinks with a hint of lime, but without the alcohol— “ suggest a healthy cocktail recipe with lime. ” Can an LLM-based search assist the user in this fuzzy query by finding some recipes? Absolutely! (See Figure 10.10).

≡ LIFE COPILOT

HERE ARE FIVE HEALTHY,
CITRUS-FORWARD MOCKTAILS
THAT ARE REFRESHING & FULL
OF FLAVOR:

	<p>CITRUS COOLER OJ, LEMON JUICE, LIME, SPARKLING WATER, MINT LEAVES, HONEY</p>
	<p>GRAPEFRUIT SPARKLER GRAPEFRUIT JUICE, CLUB SODA, ROSEMARY SPRIGS, SPASH OF LIME JUICE</p>
	<p>LEMON-GINGER FIZZ</p>



ASK...

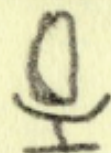


圖 10.10 查詢的 LLM 模糊搜尋結果：建議含有酸橙的健康雞尾酒配方

Figure 10.10 LLM fuzzy search results for a query: suggest a healthy cocktail recipe with lime

現在輪到你了。考慮您的用戶可能會詢問哪些類型的模糊（fizzy？）查詢，並創建一兩個線框圖來顯示這些類型的搜索結果的外觀。在完成此練習之前，不要收集 200 美元並進入下一章！

Now it ' s your turn. Consider what kinds of fuzzy (fizzy?) queries might be asked by your users and create a wireframe or two showing how those types of search results might look. Do not collect \$200 and go to the next chapter until you complete this exercise!