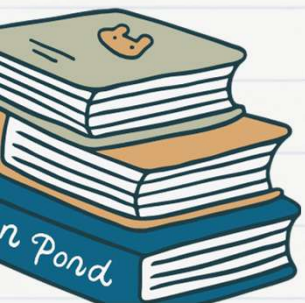




AI知識工坊

資料庫 × AI：智慧檢索入門

圖資處 參考諮詢組 張玉貞



大綱

Web of Science

WOS Research Assistant

Scopus

Scopus AI

Others

ProQuest Databases
EndNote 2025.1





引文索引資料庫？



- 經由出版社專家**嚴謹的審核標準**，幫你找出兼具品質與影響力的期刊文章
- 分析文章**引用的參考文獻**，推斷出不同文章之間的主題相似度
- 計算學者發表過的文章數量、被引用情況，來判斷學術地位和影響力
- 剛開始進行研究、找具備學術品質文章的最佳工具
- 資料庫本身**不包含全文資料**，是否可看到全文資料視學校的採購狀況而定

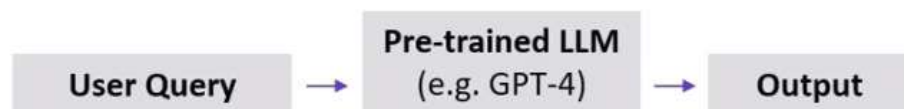
引文索引資料庫-Web of Science核心合輯

- 為科睿唯安(Clarivate Analytics)建置之網際網路版引用文獻索引資料庫(內容包含期刊、論文集、書籍)
 - 表示文獻間相互引用關係，探索文章間的主題關聯性，提供研究參考資訊，瞭解同儕及競爭對手之研究
 - 三大專輯
 - Science Citation Index Expanded (SCIE)1995-
 - 9,500多種影響力期刊，涵蓋178個科學領域
 - Social Sciences Citation Index (SSCI) 2016-
 - 3,500多種影響力期刊，涵蓋58個社會科學領域
 - Arts and Humanities Citation Index (A&HCI)
 - 海大沒採購
- 2023年7月新增PQDT全球博碩士論文資料庫
 - Preprint Citation Index預印本引文索引
 - 沒有經過同行評審,基於交流目的先發佈的文獻



一般大眾通用的LLM

- 訓練數據: 網路
- 無特定方向, 不透明
- 但有效於訓練LLM去:
 - 理解模式
 - 生成連貫的文本輸出
 - 翻譯用戶查詢

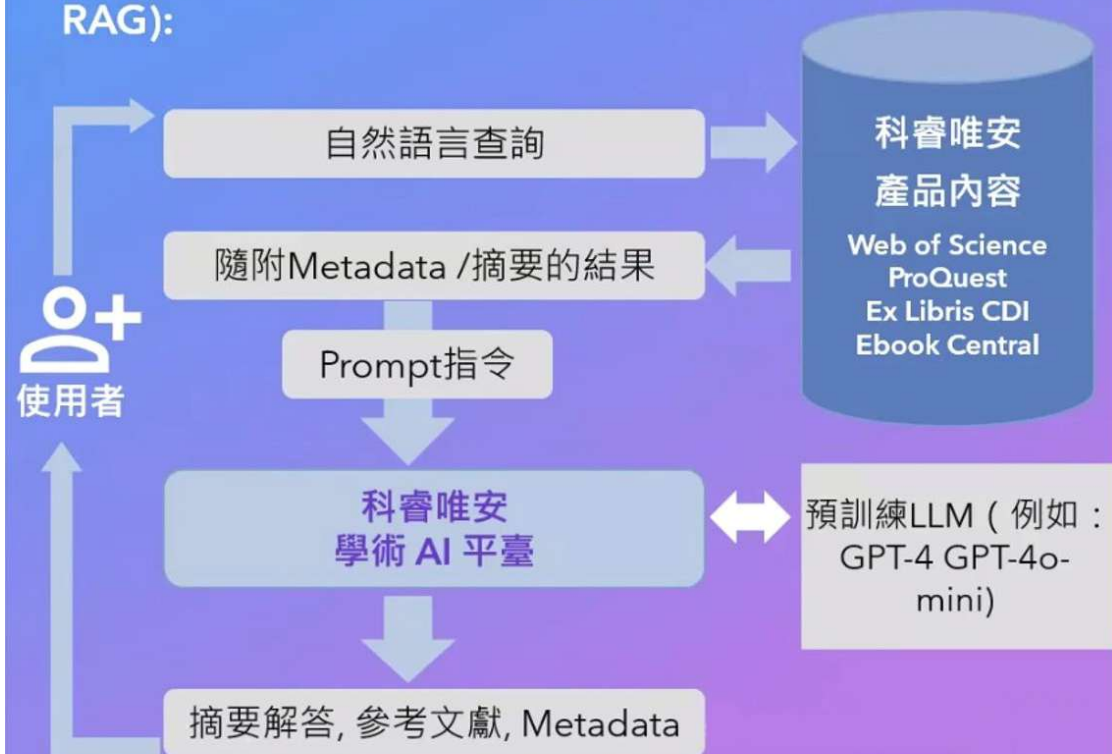


學術AI

基於可信的內容生成結果

- 結果來自受信任的內容與資訊
- 最小化幻覺與偏見

檢索增強生成 (Retrieval Augmented Generation, RAG):



Web of Science Research Assistant

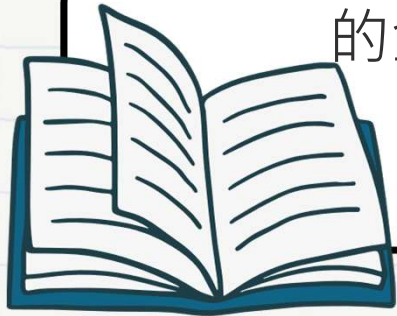
- WOS RA 是 Clarivate 於 2024 年 9 月推出的生成式 AI 工具
- 主要目標是幫助研究人員以更智慧、更高效的方式，從 Web of Science 核心合輯的資料中獲取更多資訊
- 它被設計為一個超越傳統聊天機器人的工具，專門用於學術研究場景



WOS RA主要功能特色

結合大型語言模型（LLMs）和檢索增強生成（Retrieval Augmented Generation, RAG）架構，確保其回覆基於 Web of Science 核心合輯中經過審核的學術內容，而非廣泛的網路資料

- **自然語言檢索**：使用者可以用自然的對話方式提問，無需使用傳統的布林邏輯檢索詞或複雜的檢索式設計
- **多語言支援**：支援上百種語言進行檢索
- **智慧語義檢索**：利用 Web of Science 的知識圖譜來擴展查詢中的關鍵字和概念（例如同義詞或相關術語），以確保檢索結果的全面性和相關性



WOS RA回覆與內容品質

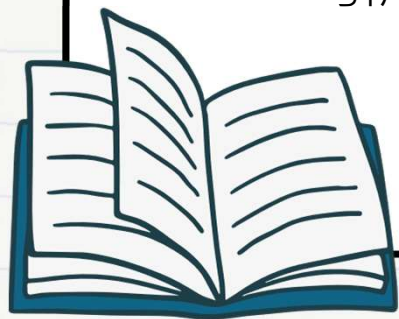
- **基於可信賴的學術內容：**所有的回覆皆僅基於 Web of Science 核心合輯的精選資料（期刊文章、會議論文集、書籍章節和專利）。確保資訊的權威性和可靠性，避免「幻覺」（捏造事實）或偏見
- **結構化和簡潔的回覆：**內容結構清晰，提供簡要的概述、關鍵主題、結論，幫助快速掌握核心概念
- **高度透明的引用：**回覆會明確標註引用來源，可以點擊引用的編號，核實生成文本的依據是否來自列出的文章，從而驗證內容的準確性
- **深度引用分析：**能夠提供文章的引用深度分析，例如一篇論文被其他文獻引用的目的（如作為背景、支持論點或討論等）



WOS RA視覺化分析與洞察

根據查詢內容主動提供互動式的圖表和分析，協助使用者挖掘資訊之間的深層聯繫

- **歷年文獻圖**：顯示特定主題相關文獻的發表情況和趨勢，幫助判斷該領域的歷史和發展情況
- **主題圖**：透過氣泡圖或網路圖，視覺化呈現該主題與其他相關或子主題之間的聯繫和文獻數量，擴展研究思路
- **主要作者**：識別領域內的頂尖影響研究者。還會生成作者摘要，概述研究人員的專業背景、研究領域和影響力。
- **共同引用文獻圖（Co-citation Map）**：顯示一篇論文與其引用文獻之間最常共同引用的前 10 篇參考文獻，有助於識別領域內的開創性或關鍵文獻



共同引用文獻圖(Co-citation Map)

用來呈現文獻之間「被同時引用」關係的可視化分析工具

- 共同引用 (Co-Citation) 指的是：如果兩篇文獻 (A 與 B) 同時出現在另一篇文獻 (C) 的參考文獻清單中，那麼 A 與 B 之間就存在「共同引用關係」。
- 當許多篇文獻反覆地同時引用 A 與 B，代表它們在研究領域中具有某種主題或概念上的相關性。
- 依據共同引用關係查看其他相關研究文獻
- 透過文獻地圖可了解或尋找該主題的相關學者，開拓更多合作的可能

👉 簡單比喻：

如果把文獻想像成人物，「共同引用文獻圖」就像是看哪些人常常被「同一群人同時提到」，久而久之，就能看到「朋友圈」或「社群結構」



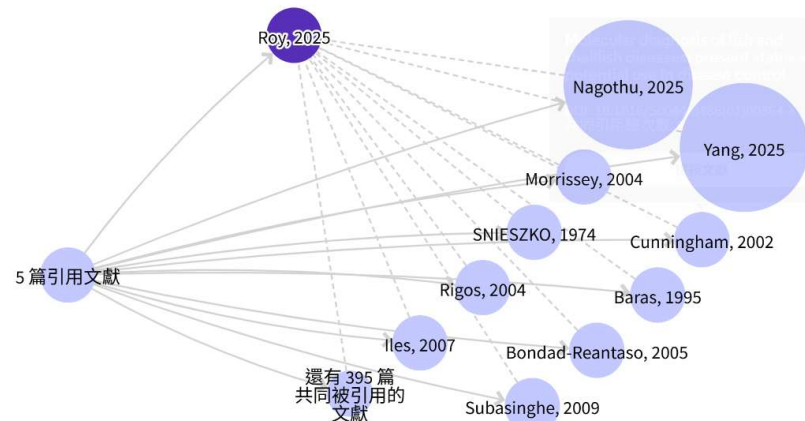
當兩篇文獻被共同引用時，表示它們經常同時被其他文獻引用。我審查了所有引用「Application of artificial intelligence in aquaculture - Recent developments and prospects」的 5 篇文獻，並在其參考清單中收集了總共 405 篇文獻。以下是被引用次數最多的前 10 篇參考文獻，這些文獻在 405 篇共同被引用的文獻中出現頻率最高。

共同引用圖：

Application of artificial intelligence in aquaculture - Recent developments and prospects
by Roy, SM; Beg, MM; (...); Kim, T | OCT 15 2025

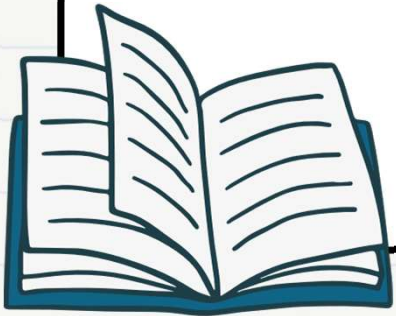
✓ 檢視共同引用文獻圖 下載資料表

顯示設定



WOS RA主要運用

- **快速瞭解研究主題**：輸入感興趣的主題。系統會回覆該主題的內容概述，並列出開創性或基礎論文，幫助快速入門
- **文獻探討與綜述**：進行深入的文獻綜述，文獻檢閱 2.0（ Literature Review 2.0 ），引入了 Agentic AI（ 代理式人工智慧 ）技術，以目標導向的方式處理複雜任務
- **尋找合適期刊**：提供論文的英文標題和摘要，幫助研究人員找到最適合其論文投稿的信譽良好、值得信賴的期刊



Research Assistant 聊天情境與使用介面

Clarivate

繁體中文 產品

jenny chang

登入個人化帳號
可記錄歷史提問
資訊

Web of Science™

智慧檢索 進階檢索 Research Assistant

聊天記錄

功能表 Today

人工智慧

人工智慧與水產養殖的運用

9月

人工智慧與無人機

伊士坦堡[文獻綜述]

Understand a topic[伊士坦堡]

伊士坦堡的歷史定位

機械與機電工程

Understand a topic[消費者年]

航空市場與政治的關係[b]

Understand a topic[航空市場]

人工智慧[b]

人工智慧

8月

關稅政策與通貨膨脹

綠色能源[a]

Before 6月 2025

提交意見

AI 生成的內容：品質可能會有不同。
請檢查準確性。
[關於研究助理](#) [Disclaimer](#)

✦ Accelerate Your Research with a Smart Assistant

Choose an agentic AI guide to help you advance your research goals

Topic Explorer

Explore topics, identify related subtopics, and visualize trends.

Literature Review

Synthesize the literature, uncover research gaps and hotspots, and formulate hypotheses.

Find a Journal

Match your manuscript or topic to relevant, trusted journals.

Have a research question?

✦ 提出研究問題

問題範例：

氣候變遷如何影響生物多樣性？

誰是遺傳學領域中被引用最多的作者？

在過去 12 個月內，哪些機構發表了最多關於 COVID 的文章？

¿Cuáles son las consecuencias físicas de seguir una dieta vegana?

開啟聊天問答，支援自然語言輸入問題
可用中文、英文等多種語言

Research Assistant 聊天情境與使用介面

① 使用者問題顯示 (系統選項預設為英文，如使用者輸入中文，會顯示中文)。

② 回答(可顯示中文)，以結構化方式總結相關的研究概念，並建議與提供相關的參考文獻，且可進一步查看檢索策略，拓展相關關鍵字

③ 點選各篇可進行瀏覽與進一步深度分析。

Clarivate Web of Science™ 智慧檢索 進階檢索 Research Assistant jenny chang

功能表 首頁 新對話

聊天記錄

Today

- AI對人類未來的影響
- 人工智慧
- 人工智慧與水產養殖的運用

9月

- 人工智慧與無人機
- 伊士坦堡[文獻綜述]
- Understand a topic[伊士坦堡]
- 伊士坦堡的歷史定位
- 機械與機電工程
- Understand a topic[消費者年]
- 航空市場與政治的關係[b]
- Understand a topic[航空市場]
- 人工智慧[b]
- 人工智慧

8月

- 關稅政策與通貨膨脹
- 綠色能源[a]

Before 6月 2025

- 識別以下項目的研究缺口
- 我想知道台灣人工智慧的影響

Before 3月 2025

- AI對人類未來的影響

這些結果是如何產生的? 點選獲取檢索策略，拓展關鍵字

研究概念概述

本研究綜合了人工智慧 (AI) 在水產養殖中的應用，強調了其在提升生產效率、優化水質管理和促進可持續發展方面。主要主題包括「人工智慧技術的應用」、「水質管理與健康監測」和「挑戰與未來研究方向」。

人工智慧技術的應用：

- AI技術如機器學習和深度學習在水產養殖中被廣泛應用，以提高生產過程的效率和準確性。
- 生成式人工智慧 (GAI) 被認為是水產養殖中最具創新性和前景的技術之一，能夠改善營養實踐和資源管理。
- 自動化系統如AS-ID-NT能夠實時監測魚類健康，顯著提高疾病檢測的準確性。

水質管理與健康監測：

- AI技術在水質監測中發揮了重要作用，能夠實時收集和分析水質數據，從而幫助養殖者及時調整養殖條件。
- 機器學習方法被用來評估水的物理化學特性，並預測魚類的飼料消耗，從而優化飼養管理。
- 智能水質檢測系統的設計能夠持續監控水質，並利用AI進行數據預測，提升水產養殖的可持續性。

挑戰與未來研究方向：

- 雖然AI在水產養殖中展現出巨大潛力，但仍面臨數據收集、標準化和模型準確性等挑戰。
- 需要進一步的研究來克服AI技術在商業水產養殖中的實施障礙，如數據隱私和社會接受度問題。

25篇已參考文獻：

- Application of artificial intelligence in aquaculture - Recent developments and prospects
- Roy, SM; Beg, MM; Kim, T
- OCT 15 2025 | AQUACULTURAL ENGINEERING

引用文獻網路

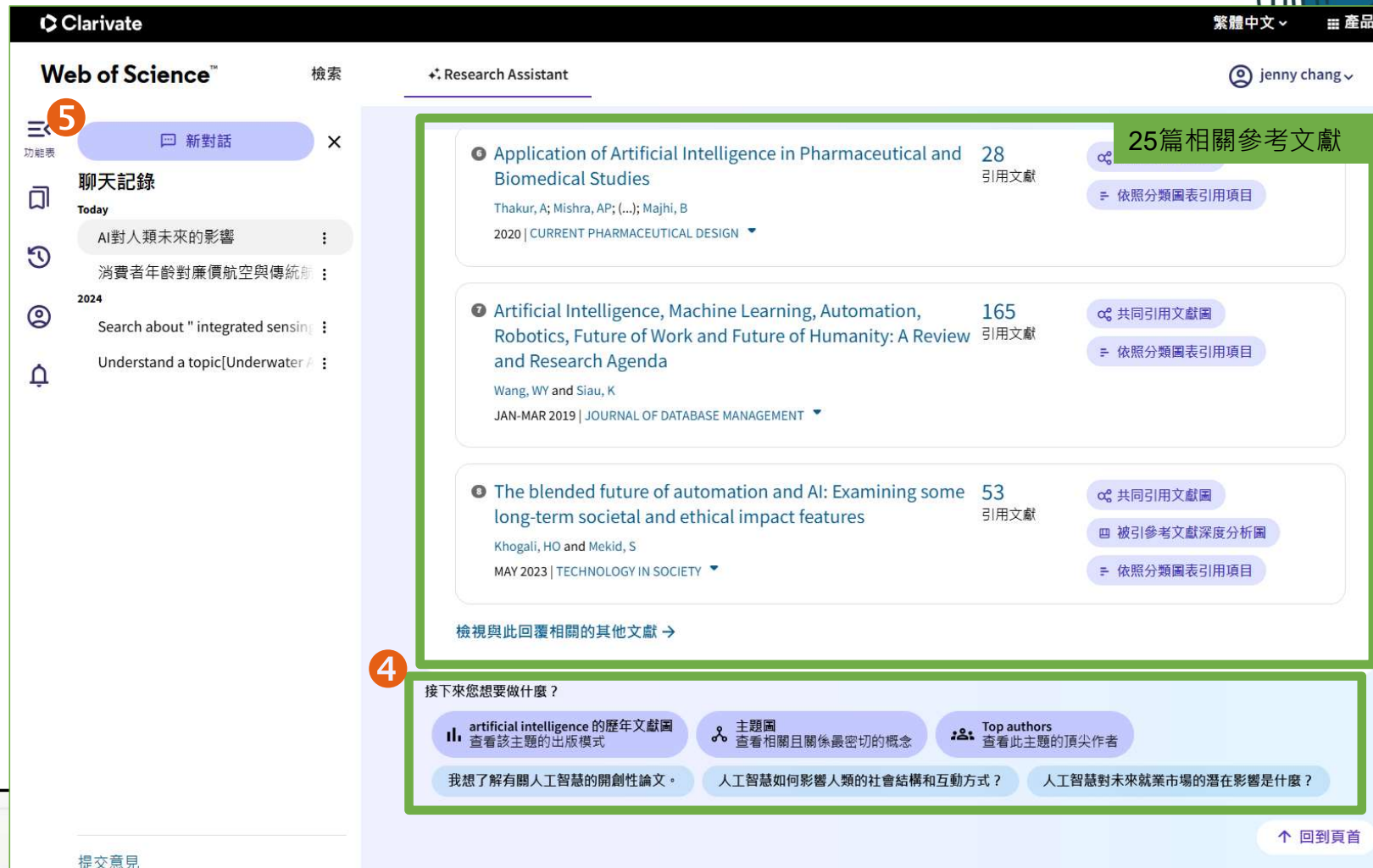
5 119

引用文獻 參考文獻

Research Assistant 聊天情境與使用介面

4 AI建議的引導式問題：可進一步點選發掘相關的「文獻分析」、「主題分析網絡」、「研究趨勢與人員」

5 發起新的問答，查看歷史AI問答資訊。登入個人化帳號可記錄歷史提問資訊



The screenshot displays the Clarivate Research Assistant interface. The top navigation bar includes the Clarivate logo, a search bar, and a 'Research Assistant' tab. The sidebar on the left contains a 'Web of Science' logo, a '新對話' (New Conversation) button, and a '聊天記錄' (Chat History) section with three items: 'AI對人類未來的影響', '消費者年齡對廉價航空與傳統航', and 'Search about "integrated sensing"'. The main content area shows a list of research papers. The first paper is 'Application of Artificial Intelligence in Pharmaceutical and Biomedical Studies' by Thakur, A; Mishra, AP; (...); Majhi, B, published in 2020 in CURRENT PHARMACEUTICAL DESIGN, with 28 citations. The second paper is 'Artificial Intelligence, Machine Learning, Automation, Robotics, Future of Work and Future of Humanity: A Review and Research Agenda' by Wang, WY and Siau, K, published in JAN-MAR 2019 in JOURNAL OF DATABASE MANAGEMENT, with 165 citations. The third paper is 'The blended future of automation and AI: Examining some long-term societal and ethical impact features' by Khogali, HO and Mekid, S, published in MAY 2023 in TECHNOLOGY IN SOCIETY, with 53 citations. Each paper entry includes a '共同引用文獻圖' (Common Citation Graph) button and a '依照分類圖表引用項目' (Cite by Classification Chart Cite Item) button. A green box highlights the first three papers. Below the list, a section titled '檢視與此回覆相關的其他文獻' (View other documents related to this response) contains a '4' icon and a '接下來您想要做什麼?' (What do you want to do next?) section. This section includes three buttons: 'artificial intelligence 的歷年文獻圖' (View the annual literature graph of artificial intelligence), '主題圖' (View the topic graph), and 'Top authors' (View the top authors of this topic). Below these buttons are three search suggestions: '我想了解有關人工智慧的開創性論文。', '人工智慧如何影響人類的社會結構和互動方式?', and '人工智慧對未來就業市場的潛在影響是什麼?'. The bottom right corner has a '回到頁首' (Back to top) button.

Clarivate

Web of Science™ 檢索

Research Assistant

jenny chang

5 新對話

聊天記錄

Today

AI對人類未來的影響

消費者年齡對廉價航空與傳統航

2024

Search about "integrated sensing"

Understand a topic[Underwater

1 Application of Artificial Intelligence in Pharmaceutical and Biomedical Studies 28 25篇相關參考文獻

Thakur, A; Mishra, AP; (...); Majhi, B

2020 | CURRENT PHARMACEUTICAL DESIGN

2 Artificial Intelligence, Machine Learning, Automation, Robotics, Future of Work and Future of Humanity: A Review and Research Agenda 165

Wang, WY and Siau, K

JAN-MAR 2019 | JOURNAL OF DATABASE MANAGEMENT

3 The blended future of automation and AI: Examining some long-term societal and ethical impact features 53

Khogali, HO and Mekid, S

MAY 2023 | TECHNOLOGY IN SOCIETY

檢視與此回覆相關的其他文獻

4 接下來您想要做什麼?

artificial intelligence 的歷年文獻圖 查看該主題的出版模式

主題圖 查看相關且關係最密切的概念

Top authors 查看此主題的頂尖作者

我想了解有關人工智慧的開創性論文。

人工智慧如何影響人類的社會結構和互動方式?

人工智慧對未來就業市場的潛在影響是什麼?

提交意見

回到頁首

AI Agents-文獻檢閱(Literature review)



01

優化查詢

在整合文獻資料之前精準設定並驗證搜索策略

確保檢索方向的準確性

推理與規劃



02

劃定範圍

使用者可自主選擇加入或排除的主題、關鍵字

並限定文獻發表的時間範圍

目標導向的行動



03

定義輸出

根據自身需求，生成包含特定必要部分的客製化結果

提升文獻綜述的實用性

整合多種資料來源

自動化多步驟流程執行複雜任務
為研究人員解決文獻探討的挑戰



文獻檢閱2.0



The screenshot displays the Web of Science Research Assistant interface. At the top, the Clarivate logo is on the left, and '繁體中文' and '產品' are on the right. Below the logo, the 'Web of Science' title is followed by navigation tabs: '智慧檢索', '進階檢索', and 'Research Assistant' (which is selected). A user profile 'jenny chang' is visible in the top right. On the left side, there is a sidebar with a '功能表' (Menu) icon and a '聊天記錄' (Chat History) section. The chat history lists several topics with timestamps: 'Today' (關稅政策與通貨膨脹, 綠色能源[a]), 'Before 6月 2025' (識別以下項目的研究缺口: 台灣, 我想知道台灣人工智慧的相關), 'Before 3月 2025' (AI對人類未來的影響, 消費者年齡對廉價航空與傳統航), and '2024' (Search about "integrated sensin", Understand a topic[Underwater]). The main area is titled '開始文獻檢閱' (Start Document Review) and features a large input field with the placeholder text '告訴研究助理您文獻檢閱的主題或工作' (Tell the research assistant the topic or work of your document review). Below the input field are four buttons: '建立完整的文獻評審' (Build a complete document review), '識別研究缺口' (Identify research gaps), '尋找熱點' (Find hotspots), and '擬定假說' (Formulate hypotheses).

碩睿資訊 教育訓練 直播課程服務

2025年09月-2026年02月

使用電腦、手機、平板，並戴上耳機，透過網路連線，
即刻享受Online直播課程的便利性！



立即報名



※9/17,11/17※

WoS x Research Assistant—
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講題：WoS x Research Assistant + Journal Citation Reports期刊評比資料庫

日期：11/18(二) 1:00~3:00

地點：行政大樓第二演講廳

講師：碩睿資訊專業講師林庚賢先生



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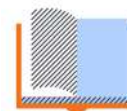
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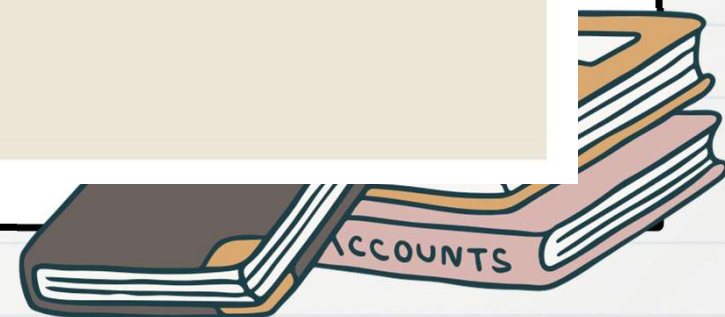
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Scopus AI & Deep Research

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- ✓ 與學術社群共同設計，以滿足研究需求
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Scopus AI 回應包括哪些內容？



Summary 摘要

高層次、完整引用的摘要，並包含工具對回覆信心水準的指引



Expanded Summary 擴展摘要

使用 RAG Fusion 的延伸引用摘要，從多個角度探索每個查詢



Go Deeper 深入問題

一系列提示，幫助你持續探索與學習



Concept Map 概念圖

可點擊的視覺化圖表，利用關鍵字提供議題空間的全景視角



Foundational Documents 基礎文獻

列出啟發摘要中引用文章的具影響力論文



Topic Experts 主題專家

所選領域的頂尖研究者（依相關出版量排序）



Emerging Themes 新興主題

提供議題概覽，幫助識別研究領域中的主題與潛在機會



Deep Research 深度研究報告

多頁分析報告，提供洞見與想法，助你推進研究——適合複雜或開放性問題



Conversational follow-up 對話式跟進

自由文字欄位，可輸入後續問題，深入挖掘研究



Recent Conversations 對話歷史

自動生成你所有先前查詢的列表，隨時可恢復現有搜尋

新

新

新



使用自然語言查詢簡化檢索流程

- 強大的Copilot 搜尋工具支援自然語言和多國語言搜尋
- 結合向量和關鍵字搜索，為您構建複雜的布林查詢
- 分解和優化查詢以提高結果的精準度

Copilot 完全透明– 您可以即時追蹤它所採取的每一步

人工智慧與水產養殖的運用

[Hide Copilot steps](#) ^

☑ Creating a plan to answer your query

☑ Performing natural language search:

- How is artificial intelligence applied in aquaculture?

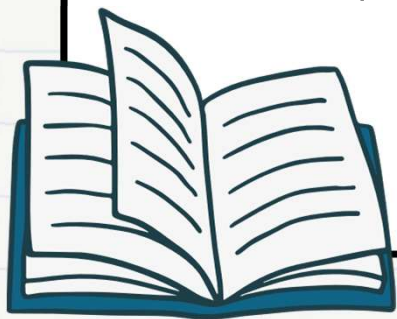
☑ Performing keyword search:

- ("artificial intelligence" OR "ai" OR "machine learning" OR "deep learning") AND "aquaculture" AND ("fish farming" OR "marine" OR "aquatic" OR "shellfish") AND ("monitoring" OR "management" OR "optimization" OR "sustainability") AND ("data analysis" OR "predictive" OR "modeling" OR "automation") AND ("health" OR "growth" OR "feed" OR "environment")

☑ Generating summary

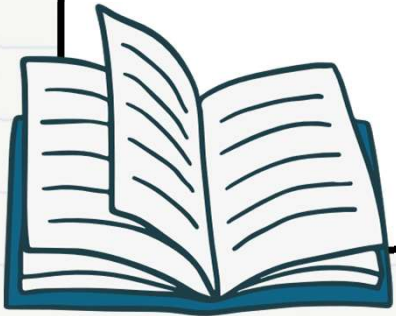
Summary

Applications of Artificial Intelligence in Aquaculture



從兩份含有Scopus 引用文獻的概述中選擇

- 易於理解的Summary 為您的初始查詢提供簡潔的回應
- Expanded Summary 提供專有技術以提供更多深度和視角



人工智慧與水產養殖的運用

Show Copilot steps ▾

Summary

Applications of Artificial Intelligence in Aquaculture

Artificial Intelligence (AI) is increasingly being integrated into aquaculture, offering numerous benefits across various operational aspects. Here are some key applications and their impacts:

Water Quality Management

- **Real-time Monitoring** deep learning (DL), and temperature, dissolved conditions for aquatic environmental impact

Expanded summary

Based on the user's query, I will provide a summary that addresses the key applications of artificial intelligence (AI) in aquaculture, the challenges and limitations of applying AI in aquaculture, how AI improves efficiency and sustainability in aquaculture, and the ethical considerations of using AI in aquaculture.

Key Applications of Artificial Intelligence in Aquaculture:

- AI applications in aquaculture include Generative Artificial Intelligence (GAI), machine learning (ML), deep learning (DL), and the integration of AI with the Internet of Things (IoT), known as Artificial Intelligence of Things (AIoT) [1](#) [2](#) [3](#) [4](#).
- These technologies are used for water quality management, fish stock health prediction, automated feeding supervision, real-time monitoring, disease detection, and optimized

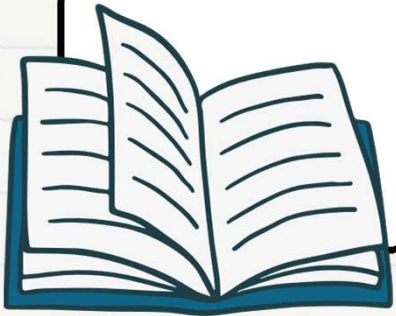
繼續探索更多研究面向

- Scopus AI 會為每個查詢產生 3個Go Deeper 的問題，以協助深入分析
- Conversational follow-up，可以輕鬆提出自己的問題——非常適合檢查細節、完善思維或重新調整查詢重點

Go deeper

- ↳ What are the key AI technologies used in aquaculture?
- ↳ How does AI contribute to improving fish health and disease management in aquaculture?
- ↳ In what ways does AI optimize feeding and growth management in aquaculture?

Ask a follow-up question



始終掌握狀況對話記錄

- 自動將過去的對話儲存到加密且安全的伺服器，以便可以隨時重新查看關鍵見解
- 可讓您在離開後再回顧繼續查詢
- 提供先前主題探索的實用概觀
- 不想儲存您的搜索？可選擇
Temporary conservation mode
(臨時對話模式)

Temporary conversation



Scopus



Today

Artificial Intelligence in ...

September

Artificial Intelligence

Drones and Artificial Int...

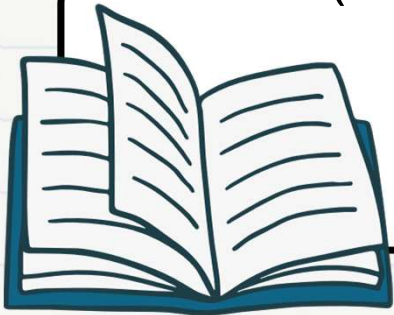
Drones and Artificial Int...

Drones and Artificial Int...

Aviation and Politics

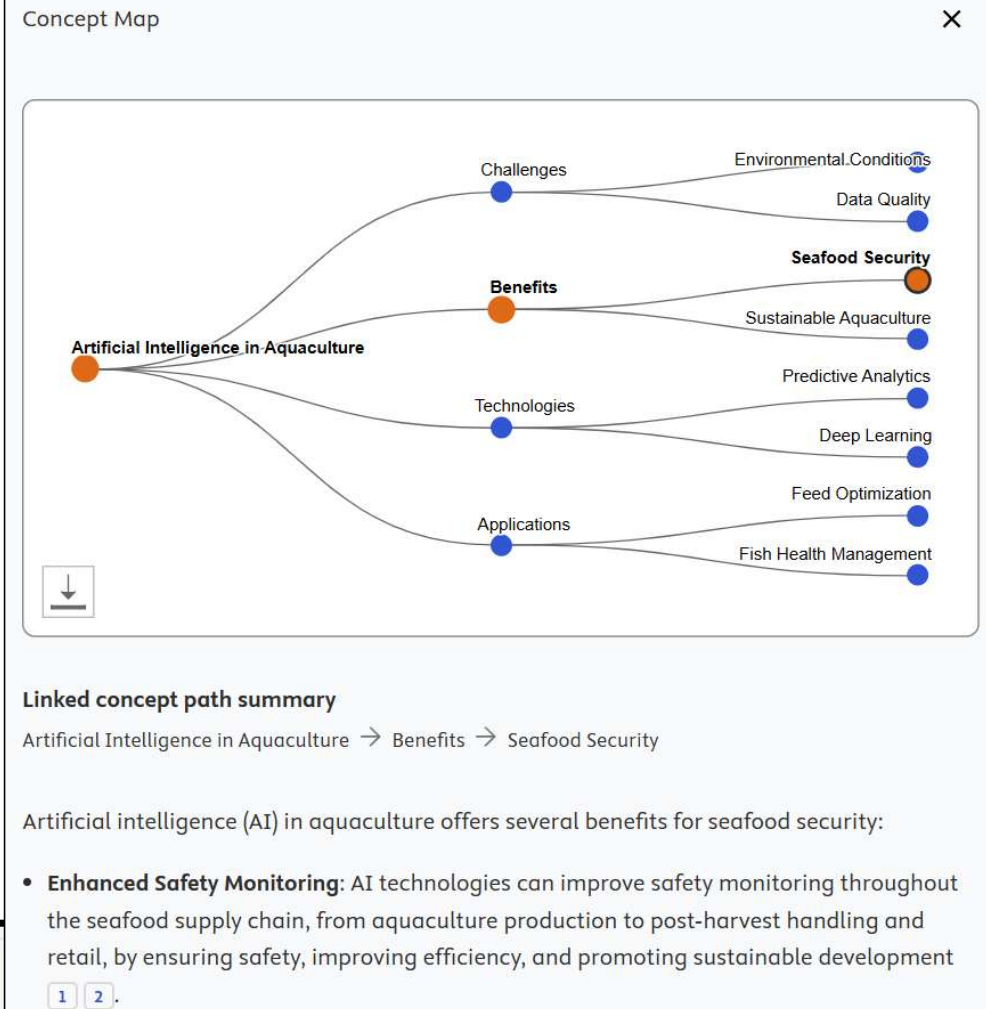
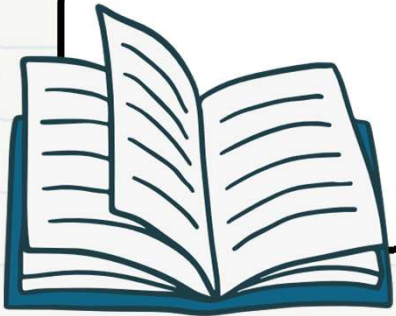
May

GenAI



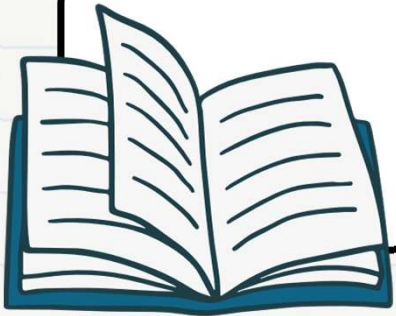
透過概念圖看到全局畫面

- 在您的領域中，有助於理解連結的直觀視角
- 鳥瞰主題及與其他研究領域的關係
- 點擊一個節點以探索它與您選擇的主題的關係



發現開創性的發表和作者

- 基礎文件向您顯示用於撰寫摘要最常引用的論文
- Scopus AI 利用Scopus中豐富的作者檔案來找出主題專家——所選領域中最活躍的作者。



Foundational documents

Applications of data mining and machine learning framework in aquaculture and fisheries: A review

J., Gladju, Joseph

Overview of sn

learning and c

T.T.E., Vo, Thi Thu

[Show more do](#)

Topic Experts

Mahajan, Rupesh Gangadhar R.G.

37 citations 1 matching documents 5 h-index

Rupesh Gangadhar Mahajan is an expert in the application of artificial intelligence in aquaculture, particularly in ocean fish farming systems. Their recent work focuses on AI-based monitoring and management, which is crucial for optimizing fish farming. This involves using advanced technologies to enhance productivity, ensure sustainability, and improve the overall health of aquatic ecosystems. Their research contributes to a better understanding of how AI can be integrated into aquaculture, making them a valuable resource for anyone interested in the intersection of technology and fish farming.

[Preview profile](#)

Tatiya, Manjusha M.

Insights at a glance

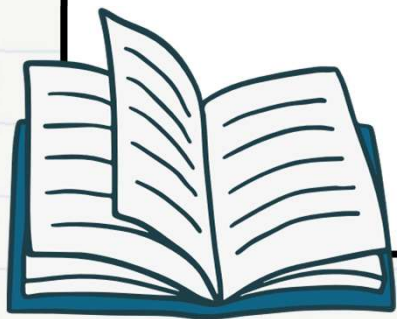
Concept Map

Topic Experts

Emerging Themes

找到具有新興主題的適宜帶

- 即時掌握任何研究領域的格局
- 發現主題之間意想不到的聯繫
- 在新興和新穎的主題成為主流之前發現它們



Emerging Themes



AI-Driven Disease Detection in Aquaculture Novel Theme

The application of advanced artificial intelligence systems, such as convolutional neural networks and adaptive multiple intelligence fusion systems, is revolutionizing disease detection in aquaculture. This novel approach enhances the precision and timeliness of identifying diseases in species like Nile Tilapia, which is crucial for maintaining healthy fish populations and optimizing production costs.

[Show references](#)

Potential Hypotheses:

- AI-driven disease detection systems can significantly reduce mortality rates in aquaculture by enabling early intervention
- The integration of adaptive AI systems in aquaculture can optimize both fish health and production costs, leading to more sustainable practices

Smart Aquaculture Systems with IoT and AI Integration Consistent Theme

The integration of IoT and AI technologies in aquaculture has consistently shown promise in enhancing monitoring, management, and sustainability. These smart systems enable real-time data collection and analysis, leading to improved water quality, optimized feeding, and better overall management of aquaculture environments.

[Show references](#)

Scopus AI Deep Research

- 問題已不再是「我應該使用AI嗎？」而是「哪種AI能幫助我完成這項任務？」

長期的研究者需求



策略洞察



複雜問題
解決



批判性思維

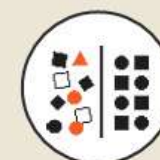


創意構想

AI 如何演進以滿足這些需求



提升文獻回
顧品質



更豐富的參
考資料與細
緻的回應



發掘新穎的
想法與關聯



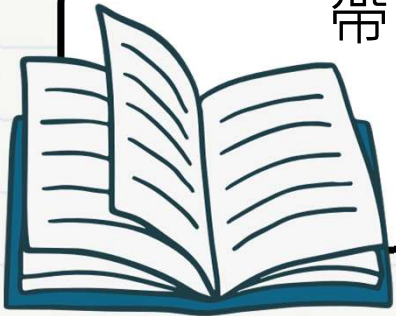
協助研究者
做出更明智
的決策

Ask research questions to generate a detailed report, try being very specific.

☒ Deep research

Deep Research

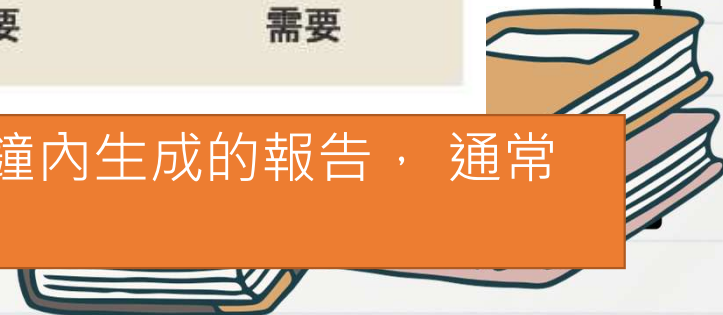
- 是一款AI 代理人工具，旨在模擬人類思考的部分過程
- 它能夠自主拆解問題，並在Scopus的同儕審查內容中挖掘答案，同時解讀結果，並依需求調整分析方式
- 研究發現與由此產生的洞見，將以一份具有層次感、附帶完整參考資料的報告形式呈現



Deep Research 可以加速並簡化研究過程

作為使用者，我需要...	Deep Research	大多數 GenAI 工具	非AI工具
專業領域詞彙知識	不需要	不需要	需要
建立布林搜尋字串的經驗	不需要	不需要	需要
執行多次搜尋所需的時間	不需要	需要	需要
整合研究結果的分析能力	不需要	需要	需要
從結果中提取洞見所需的時間	不需要	需要	需要

研究人員告訴我們，Deep Research在幾分鐘內生成的報告，通常需要他們花好幾天才能完成



Deep Research 報告的結構

關鍵發現的引用總覽

Key Findings Table

Theme	Key Insights	Supporting Citations
Real-Time Feedback Mechanisms	Adaptive feedback systems improve clinician-patient communication and diagnostic accuracy.	1 2 3 4 5
Clinician Workflow Integration	Seamless integration of AI tools enhances adoption in remote diagnostics.	
Accessibility	Universal design principles ensure inclusivity for users with sensory and motor impairments.	
User Interface	Context-adaptive interfaces reduce cognitive load.	

問題的直接回應

Direct Answer

Innovative Research Questions:

1. How can multimodal real-time feedback systems (audio/visual) reduce clinician cognitive load while improving diagnostic accuracy?
2. What role do physiological indicators (e.g., heart rate variability) play in supporting clinician performance and reducing errors during remote consultations?
3. How can universal design principles be operationalized to ensure accessibility for users with combined sensory and motor impairments in telemedicine environments?
4. How does longitudinal use of human-centered decision support systems impact habit formation, and patient adherence in remote care?

研究範疇

Study Scope

- **Time Periods:** 2010–2025
- **Disciplines:** Human–Computer Interaction (HCI), telemedicine, accessibility design, and implementation science.
- **Methodologies:** Mixed-methods evaluations, usability testing, heuristic analysis, pilot studies, monitoring, and longitudinal studies.

假設與限制

Assumptions & Limitations

- **Assumptions:** Universal design principles are adaptable across XR/IoT technologies; evaluation methods frameworks are scalable for diverse healthcare contexts.
- **Limitations:** Lack of standardized metrics for accessibility in XR/IoT tools; limited longitudinal data on adaptive UI personalization impacts.

進一步研究的建議

Suggested Further Research

1. Develop standardized metrics for evaluating accessibility in XR/IoT diagnostic tools.
2. Investigate interoperability frameworks for real-time HCI performance data across diverse IoT medical devices.
3. Explore longitudinal impacts of adaptive UI personalization on clinician trust and patient outcomes.



Deep Research 報告的結構

正文

Introduction

Context and Significance

Remote medical diagnostics have emerged as a cornerstone of modern healthcare, driven by advancements in telemedicine, IoT, and AI technologies. Human-Computer Interaction (HCI) plays a pivotal role in enhancing diagnostic accuracy, clinician workflows, and patient engagement. However, challenges such as cognitive overload, accessibility barriers, and workflow misalignment persist, necessitating innovative research and evaluation methodologies [1][2][3]

Scope and Objectives

This report explores innovative research questions and user study methodologies to improve HCI in remote medical diagnostics. Key areas include interface design, real-time feedback mechanisms, accessibility, and clinician workflow integration.

Innovative Research Questions in Human-Computer Interaction for Remote Medical Diagnostics

Novel HCI Challenges and Opportunities in Remote Diagnostics

- **Intelligent Interaction Methods:** How can adaptive multimodal feedback systems reduce cognitive load while enhancing diagnostic precision? [14][15][16]
- **AI and IoMT Integration:** What are the best practices for embedding AI-driven decision support tools into clinician workflows? [17][18][19]
- **Emerging Technologies:** How can XR and IoT technologies be leveraged to create immersive, accessible diagnostic environments? [20][21]

Optimizing User Interface Design for Remote Diagnostic Systems

- **Context-Adaptive Interfaces:** How can dynamic GUIs tailored to clinical contexts improve usability and reduce errors? [22][23]
- **Heuristic Evaluations:** What role do heuristic evaluations play in identifying critical usability issues in medical interfaces? [24][25]

綜合段落

討論與未來研究方向

Discussion and Future Directions

Bridging Research and Clinical Practice

Human-centered design and stakeholder engagement are critical for translating HCI research into clinical workflows. Iterative co-design processes ensure tools align with clinician and patient needs [47][48]

Leveraging Emerging Technologies

AI, IoT, and XR technologies offer transformative potential for remote diagnostics. Addressing challenges in privacy, interoperability, and accessibility will unlock their full capabilities [49][50]

Advancing Evaluation Methodologies

Developing robust, scalable, and context-aware user study frameworks is essential for continuous improvement of remote diagnostic systems [51][52]

Conclusion

Summary of Contributions

This report identifies innovative research questions and user study methodologies to advance HCI in remote medical diagnostics. Key areas include real-time feedback, accessibility, and workflow integration.

Recommendations for Researchers and Practitioners

1. Prioritize universal design principles in emerging technologies.
2. Employ mixed-methods frameworks for comprehensive usability evaluations.
3. Conduct longitudinal studies to assess sustained impacts on clinician trust and patient outcomes.

[Show all 52 references](#) [Download report](#)

Is this deep research report useful? [Yes](#) [No](#)



Elsevier Scopus 線上說明會

解鎖進階研究潛能: Scopus AI 與 Deep Research 功能全面解析

- 日期：11月06日(四)
- 時間：14:00 - 15:30
- 主講人：Elsevier專業講師蘇銘棻

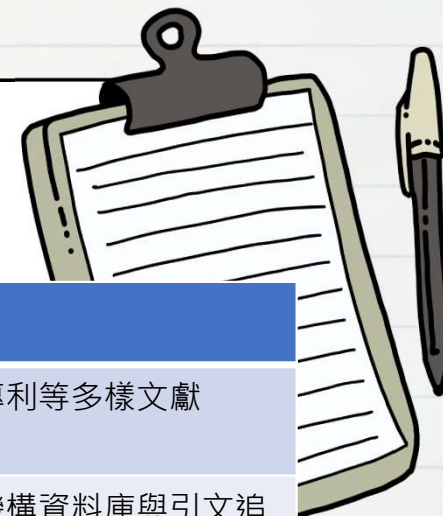
- 介紹 Scopus AI 核心功能與整體應用場景
- Deep Research 功能的操作與實務應用
- 如何善用 AI 工具進行文獻探索與資料挖掘
- 實務案例分享：提升研究效率的實戰策略



參考諮詢組



WOS與Scopus比較



項目	Web of Science (WOS)	Scopus
特色	歷史悠久，追溯文獻至1900年，嚴選期刊品質較高	收錄範圍廣，含期刊、書籍、會議、專利等多樣文獻
	資料較重視引用質量及影響力分析	更新頻率高，界面友善，擁有作者、機構資料庫與引文追蹤功能
收錄範圍	約21,000種期刊、書籍、會議	約27,000種期刊及多種文獻型態，包括未經同儕審查出版物
	偏重理工與生醫領域，人文社會科學期刊較少	社會科學與人文藝術涵蓋較充足
重要指標	影響因子 (Impact Factor, IF)、Journal Citation Indicator (JCI)、分位數等	SJR (SCImago Journal Rank)、SNIP、CiteScore等
	主要基於Clarivate公司提供的評價體系	由Elsevier公司提供，涵蓋引用和研究績效多元指標
收錄年限	可追溯至1900年	主要從1996年起收錄，較少歷史文獻

ProQuest Central Premium

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Why China is winning the trade war
The Economist; London Vol. 457, Iss. 9471, (Oct 25, 2025): 9.

全文 PDF 摘要/詳細資料

The Economist

Research Assistant

Here is the key takeaway.

中国在与美国的贸易战中取得了胜利，通过有效的反击和调整其贸易策略，而美国则在信誉和内部压力方面苦苦挣扎。

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詢問問題 (Beta 版)

The Economist October 25th 2025

Why China is winning the trade war

After months of pain, China is on top

DONALD TRUMP and Xi Jinping are due to meet in South Korea next week. However, it is uncertain whether they actually will. Such is the shocking state of the world's most important relationship. For weeks, America and China have been lashing out at each other. America has tightened tech-export restrictions and threatened higher tariffs. China has wielded sanctions and restrictions on rare earths. The two sides communicate poorly (see China section). In the White House there is a belief that America has the upper hand in this test of nerves and pain-tolerance. Scott Bessent, the treasury secretary, says China is "weak". But the reality is different.

China is winning the trade war (see Briefing). It has learned to escalate and retaliate as effectively as America. And it is experimenting with its own extra-territorial trade rules, thus changing the path of the world economy.

When Mr Trump re-entered the Oval Office, the defence component of his China policy was ambiguous: was he prepared to defend Taiwan and American allies from Chinese military threats or not? The answer is still worryingly hazy (see Asia section). But his stance on trade with China was clear. He would ramp up the pressure campaign that he began in his first term. That meant more tariffs, more controls on high-tech trade and the enthusiastic use of sanctions. The administration's aim was to hobble China's manufacturing juggernaut, extract financial and commercial concessions and slow China's technological development. Some in Team Trump even dreamed of a "grand bargain" in which China would pledge to reform state capitalism in return for America taking its foot off its throat.

After six months China is breathing more easily than America, for three reasons. First, it has proved able to withstand American coercion and deft at retaliating, achieving what is known in the jargon as "escalatory dominance". Some of Mr Trump's critics attribute this to "TACCO (Trump Always Chickens Out)". It also reflects China's underlying power, preparation and skill. The "Liberation Day" tariffs imposed by Mr Trump on China in April were reversed after Wall Street dumped. Recently, after China imposed limits with aircraft engines, Mr Xi has pushed hard to rid Chinese supply chains of foreign inputs while making the country indispensable to the supply chains of others. On paper Mr Trump could up the ante by cutting China's access to the dollar banking system. But he probably won't; the resulting turmoil in financial markets would hurt America badly.

Amid all the tit-for-tat, China is developing, by trial and error, a new set of global trading norms. This is its second area of success. It wants to build a Chinese-led system on the ruins of the old liberal trading order, one which will rival Mr Trump's empire of tariffs. Already China has shifted the geography of its trade: in the year to September its goods exports grew by over 8%, even as those to America fell by 27%. China's threats to limit rare-earth exports inspire fear because it dominates the market and could cripple Western manufacturing supply chains. But they are also remarkable because they show China trying to impose a system of global licensing. That is a fiercer version of the playbook America has used to control the semiconductor industry (see Science & technology section). Expect more examples of China recasting the rules of trade as it exploits its position as a sophisticated manufacturer and the largest trading partner of 70-odd countries.

The final reason why China is winning is that the trade war has made Mr Xi and the Communist Party stronger, not weaker. Outsiders point to China's huge problems, including its property helix, timid consumers, cowed entrepreneurs and the overcapacity and capital misallocation that its industrial policy creates. Yet to many Chinese Mr Trump's bullying has vindicated Mr Xi's 12-year project to prepare China for a hostile world by becoming a technological superpower. This week the Communist Party's leadership met to discuss a new five-year plan. It is expected to double down on Mr Xi's techno-nationalist approach.

Much could still go wrong for China. Redirecting exports away from America may prompt more countries to put up tariffs. Its nascent licensing regime could create a bureaucratic nightmare for itself and others. Just as America is discovering,

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顏瑞端,	2012	以生物及仿生物分子催化降解有...	環境與安全衛生工...	2025/10/28	Thesis
蘇爾健,	2015	應用品質機能展開法於臺灣自由...	航運管理學系	2025/10/28	Thesis
蘇育錫,	2024	以推藏可能性模型探討GenAI聊天...	資訊管理學系	2025/10/28	Thesis
櫻井恒平,	2021	烏克蘭國族認同演變之研究	俄羅斯研究所	2025/10/28	Thesis
Abdi, Yasin	2011	The appropriateness of clinical micr...		2025/10/28	Thesis
Acuff, Roy, Forrester H...	1952	A C S jamboree		2025/10/28	Audiovisual Material
Aghajanloo, K; Pirooz, ...	2013	Numerical Simulation of Oil Spill Be...	International Journ...	2025/10/28	Journal Article
A. Alsouhail; E. S. Sousa	2015	On the Utilization of Multi-Mod...	IEEE Access	2025/10/28	Journal Article
American Association f...		AACR education book		2025/10/28	Electronic Book
American Cancer Socie...	1957	1957 cancer crusade jazz panoram...		2025/10/28	Audiovisual Material
American Dental Associ...	1996	1995 survey of current issues in de...		2025/10/28	Book
Angeli, J. L. F.; Trevizani,...	2013	Arsenic and other trace elements in...	Environmental Mo...	2025/10/28	Journal Article
Ami, Patrick; van den B...	2022	Treatment versus Regime Effects of...	Journal of Business...	2025/10/28	Journal Article
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Research Assistant

結論為何?

結論

- 本文提出了一種基於無線技術的普遍接入指數 (UAI) 分析方法，並從中導出了優化接入的修正函數。
- 案例研究顯示社區中心的部署率對普遍接入指數的影響，以及由普遍接入和服務基金資助的基站數量如何影響該指數。
- 不同的無線技術方案均能改善UAI，但各自成本不同，因此在達成普遍接入的最佳策略是考慮多種無線接入技術的結合。
- 在高流量區域，WiFi接入點與LTE網絡的結合可以顯著降低所需的基站數量，從而提高整體的接入效率。

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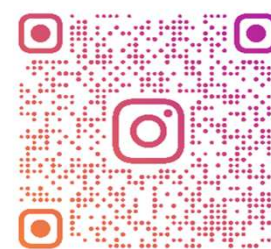
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