



ChatGPT使用宣導

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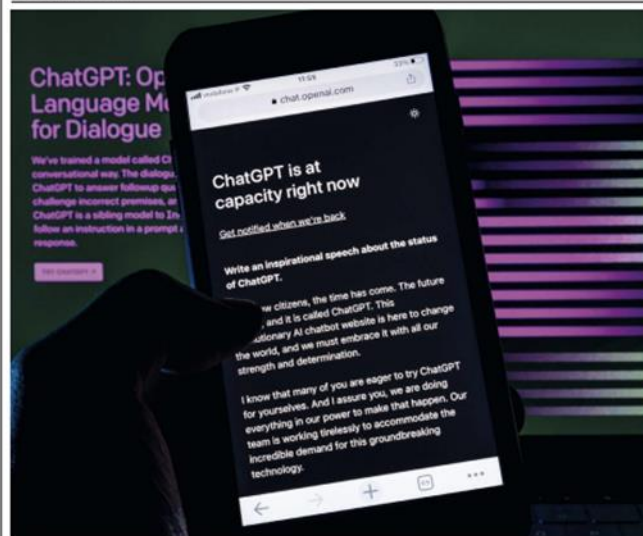
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What is ChatGPT?

1. ChatGPT 是以 OpenAI 為基礎開發的訓練語言模型。
2. ChatGPT 在人工生成文本的大型數據集上進行訓練，能理解和生成類似人類的語言，使其可應用於廣泛的自然語言處理任務，例如問答，語言翻譯等。



A chatbot called ChatGPT can help to write text for essays, scientific abstracts and more.

ChatGPT: five priorities for research

Eva A. M. van Dis, Johan Bollen, Robert van Rooij, Willem Zuidema & Claudi L. Bockting

Conversational AI is a game-changer for science. Here's how to respond.

Since a chatbot called ChatGPT was released late last year, it has become apparent that this type of artificial intelligence (AI) technology will have huge implications on the way in which researchers work.

ChatGPT is a large language model (LLM), a machine-learning system that autonomously learns from data and can produce sophisticated and seemingly intelligent writing after training on a massive data set of text. It is the latest in a series of such models released by OpenAI, an AI company in San Francisco, California, and by other firms. ChatGPT has

caused excitement and controversy because it is one of the first models that can convincingly converse with its users in English and other languages on a wide range of topics. It is free, easy to use and continues to learn.

This technology has far-reaching consequences for science and society. Researchers and others have already used ChatGPT and other large language models to write essays and talks, summarize literature, draft and improve papers, as well as identify research gaps and write computer code, including statistical analyses. Soon this technology will evolve to the point that it can design experiments, write and complete manuscripts, conduct peer review and support editorial decisions to accept or reject manuscripts.

Conversational AI is likely to revolutionize research practices and publishing, creating both opportunities and concerns. It might accelerate the innovation process, shorten time-to-publication and, by helping people to write fluently, make science more equitable and increase the diversity of scientific

perspectives. However, it could also degrade the quality and transparency of research and fundamentally alter our autonomy as human researchers. ChatGPT and other LLMs produce text that is convincing, but often wrong, so their use can distort scientific facts and spread misinformation.

We think that the use of this technology is inevitable, therefore, banning it will not work. It is imperative that the research community engage in a debate about the implications of this potentially disruptive technology. Here, we outline five key issues and suggest where to start.

Hold on to human verification

LLMs have been in development for years, but continuous increases in the quality and size of data sets, and sophisticated methods to calibrate these models with human feedback, have suddenly made them much more powerful than before. LLMs will lead to a new generation of search engines¹ that are able to produce detailed and informative answers to complex user questions.

But using conversational AI for specialized research is likely to introduce inaccuracies, bias and plagiarism. We presented ChatGPT with a series of questions and assignments that required an in-depth understanding of the literature and found that it often generated false and misleading text. For example, when we asked 'how many patients with depression experience relapse after treatment?', it generated an overly general text arguing that treatment effects are typically long-lasting. However, numerous high-quality studies show that treatment effects wane and that the risk of relapse ranges from 29% to 51% in the first year after treatment completion²⁻⁴. Repeating the same query generated a more detailed and accurate answer (see Supplementary information, Figs S1 and S2).

Next, we asked ChatGPT to summarize a systematic review that two of us authored in *JAMA Psychiatry*⁵ on the effectiveness of cognitive behavioural therapy (CBT) for anxiety-related disorders. ChatGPT fabricated a convincing response that contained several factual errors, misrepresentations and wrong data (see Supplementary information, Fig. S3). For example, it said the review was based on 46 studies (it was actually based on 69) and, more worryingly, it exaggerated the effectiveness of CBT.

Such errors could be due to an absence of the relevant articles in ChatGPT's training set, a failure to distil the relevant information or being unable to distinguish between credible and less-credible sources. It seems that the same biases that often lead humans astray, such as availability, selection and confirmation biases, are reproduced and often even amplified in conversational AI⁶.

Researchers who use ChatGPT risk being misled by false or biased information, and

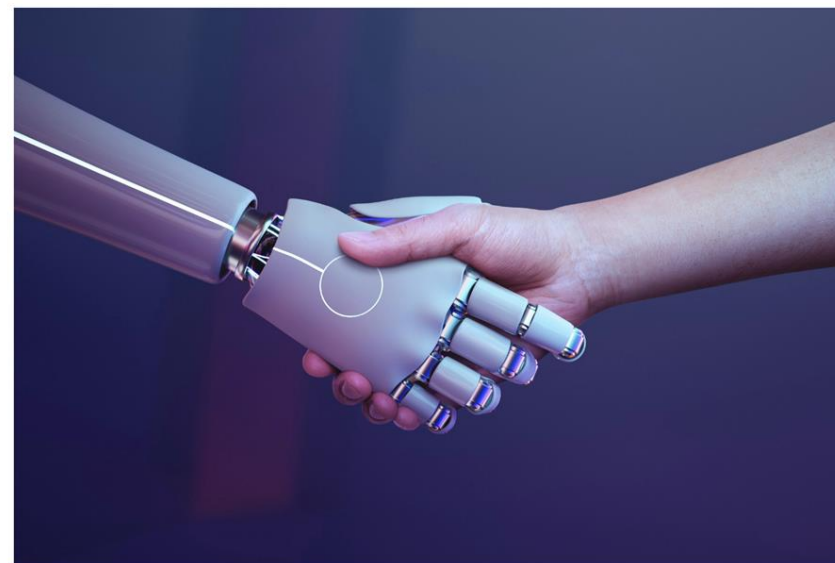
人工智能 (AI) 在醫學中的應用在許多領域都在增長，例如在醫學圖像分析中，加速診斷的速度與精確性。

然而各界擔憂 AI 輔助的語言模型，寫作與製圖軟體，於學術及教育等面向造成威脅，例如內容抄襲，使用具爭議性的文字，過度延伸資訊等，建議在使用上應予以規範。

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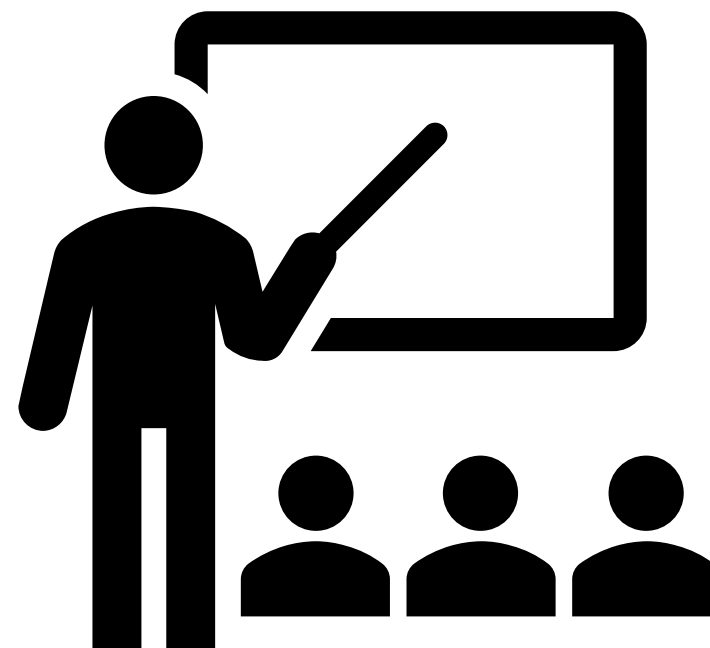
ChatGPT for Research Writing: Game Changer or Ethical Risk?

January 20, 2023 Elizabeth George



研發處對於使用 **ChatGPT** 等軟體建議：

- **1.** 不禁止使用，但使用 **ChatGPT** 協助撰寫的學生或研究人員，應在文章中清楚揭露。
- **2.** **ChatGPT** 雖可以使寫作自動化，是一個可用的工具，但不能保證可靠與原創性，甚至不小心陷入抄襲等學術倫理的困境。當使用 **ChatGPT** 時必須注意這一缺陷，並仔細檢視並編輯所產生的內容，以確保文章內容的品質與可靠性。



結語

哈佛校長 **Drew Gilpin Faust**：

高等教育最重要的目標是確保畢業生能夠識別“有人在胡說八道”。透過挑戰和被挑戰，透過面對分歧和差異，並在其中找到自己的方式來學習這一點。

如能學生能釐清 **ChatGPT** 的內容，何為可靠？何為胡說八道？也是一種很好的訓練。

學術研究的原創性與創意發想，是現在 **AI** 還做不到的，對於知識和真理的追求更應符合倫理標準。與其禁止使用這些工具，更應進一步著眼於創造力與道德觀的提升。

水能載舟，亦能覆舟，一個工具的好壞成敗還是在個人的選擇。讓 **ChatGPT** 提升我們的工作效率，而不是我們偷懶的工具。



TMU?

