



# 未来已来

The Future is Here

## 人工智能素养教育刻不容缓

The Urgent Need for Education in AI Literacy

四川大学 胡琳

2024.06.25



# 观点一：人类迄今最具变革性的技术

Point 1: AI is the most transformative technology humanity has ever created



- 我们正处于 AI的iPhone时刻
- 这是计算机历史上最强大的一次民主化

英伟达CEO 黄仁勋



# 微软：通用人工智能的雏形

2023年3月

Microsoft: ChatGPT is the prototype of AGI

GatesNotes THE BLOG OF BILL GATES

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A NEW ERA

## The Age of AI has begun

Artificial intelligence is as revolutionary as mobile phones and the Internet.

By Bill Gates | March 21, 2023 • 14 minute read



In my lifetime, I've seen two demonstrations of technology that struck me as revolutionary.

The first time was in 1980, when I was introduced to a graphical user interface—the forerunner of every modern operating system, including Windows. I sat with the person who had shown me the demo, a brilliant programmer named Charles Simonyi, and we immediately started brainstorming about all the things we could do with such a user-friendly approach to computing. Charles eventually joined Microsoft, Windows became the backbone of Microsoft, and the thinking we did after that demo helped set the company's

## Sparks of Artificial General Intelligence: Early experiments with GPT-4

Sébastien Bubeck   Varun Chandrasekaran   Ronen Eldan   Johannes Gehrke  
Eric Horvitz   Ece Kamar   Peter Lee   Yin Tat Lee   Yuanzhi Li   Scott Lundberg  
Harsha Nori   Hamid Palangi   Marco Tulio Ribeiro   Yi Zhang

Microsoft Research

### Abstract

Artificial intelligence (AI) researchers have been developing and refining large language models (LLMs) that exhibit remarkable capabilities across a variety of domains and tasks, challenging our understanding of learning and cognition. The latest model developed by OpenAI, GPT-4 [Ope23], was trained using an unprecedented scale of compute and data. In this paper, we report on our investigation of an early version of GPT-4, when it was still in active development by OpenAI. We contend that (this early version of) GPT-4 is part of a new cohort of LLMs (along with ChatGPT and Google's PaLM for example) that exhibit more general intelligence than previous AI models. We discuss the rising capabilities and implications of these models. We demonstrate that, beyond its mastery of language, GPT-4 can solve novel and difficult tasks that span mathematics, coding, vision, medicine, law, psychology and more, without needing any special prompting. Moreover, in all of these tasks, GPT-4's performance is strikingly close to human-level performance, and often vastly surpasses prior models such as ChatGPT. Given the breadth and depth of GPT-4's capabilities, we believe that it could reasonably be viewed as an early (yet still incomplete) version of an artificial general intelligence (AGI) system. In our exploration of GPT-4, we put special emphasis on discovering its limitations, and we discuss the challenges ahead for advancing towards deeper and more comprehensive versions of AGI, including the possible need for pursuing a new paradigm that moves beyond next-word prediction. We conclude with reflections on societal influences of the recent technological leap and future research directions.

<https://arxiv.org/pdf/2303.12712.pdf>

<https://www.gatesnotes.com/The-Age-of-AI-Has-Begun>

## 观点二：人工智能发展日新月异

Point 2: AI development is advancing rapidly

# 数据分析：GPT-4o

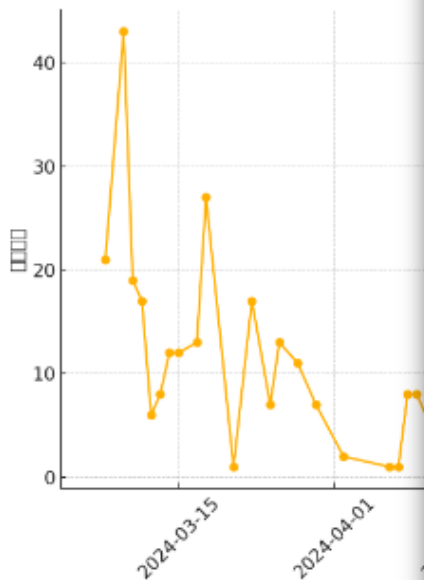
Data Analysis: GPT-4o

<https://chatgpt.com>

ChatGPT 4o



## 讲座参与人数随时间的变化

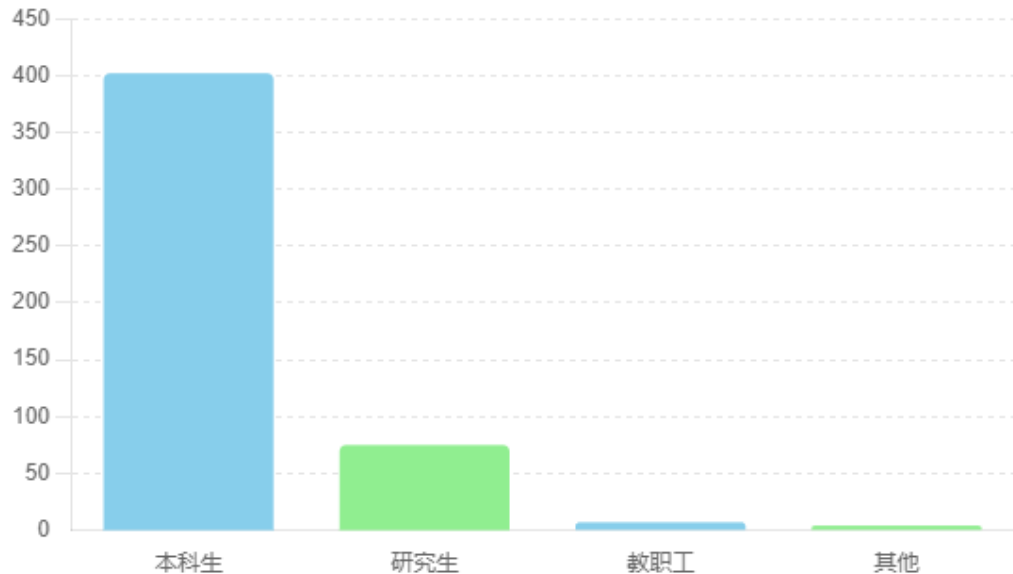


## 参与学生的学院分布



## 参与学生的基本情况

Y 人数, X 学生类型

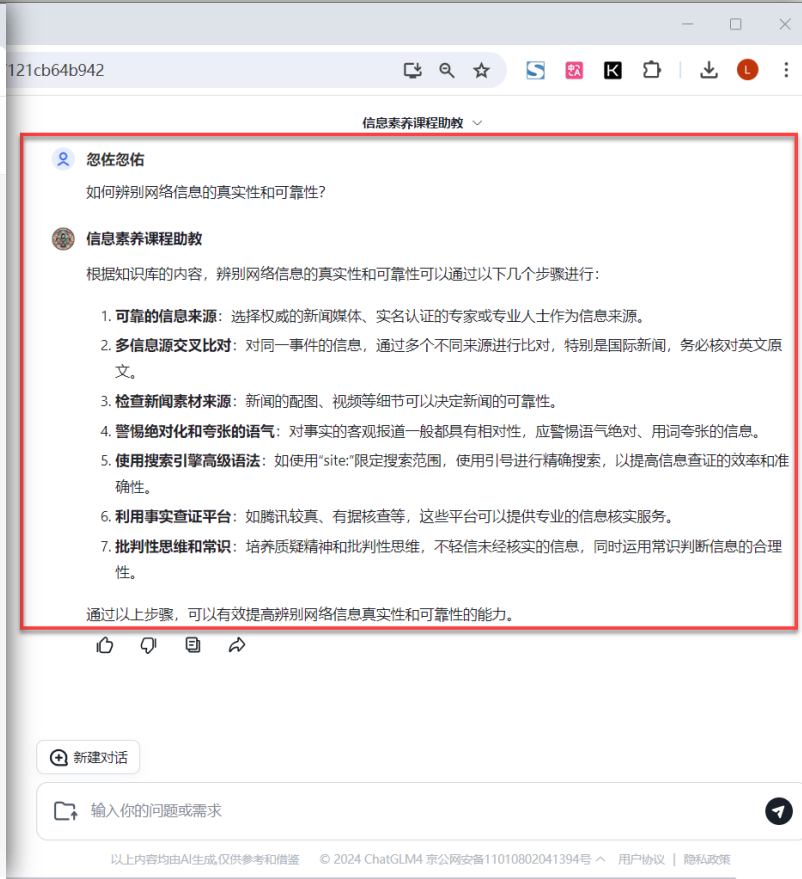
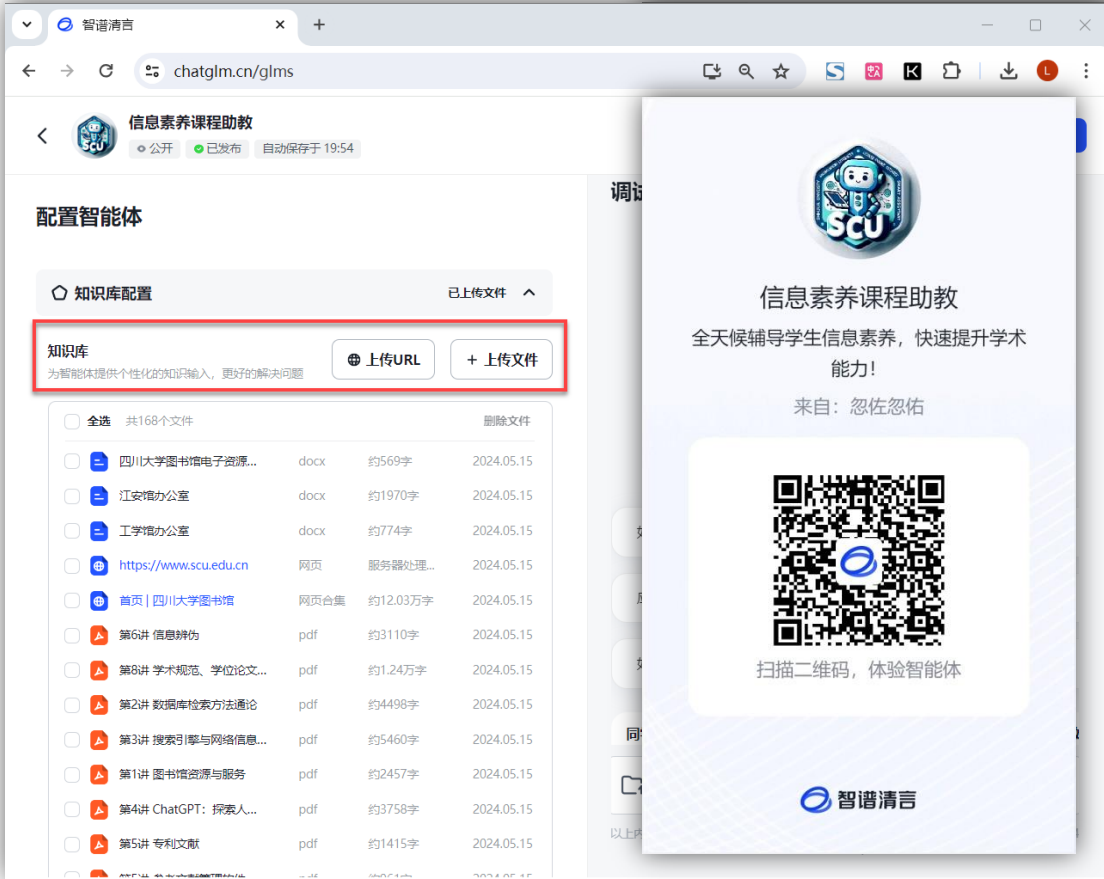


我们可以生成一个饼图，展示不同学院学生的分布情况。

# 智能体：智谱清言

AI Agent: ChatGLM

<https://chatglm.cn>





# 代码生成：Claude 3.5

Code Generation : Claude 3.5

<https://claude.ai>

 What can I help you with today?

写一个游戏需要几个步骤

Subscribe to Pro for 5x more usage with Claude 3.5 Sonnet.

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Claude 3.5 Sonnet

视频来自 [https://x.com/oran\\_ge/status/1804348441080009204](https://x.com/oran_ge/status/1804348441080009204)



# 以文生图：Midjourney

Text-to-Image Generation：Midjourney

<https://www.midjourney.com>



the face of woman with beautiful blue eyes, in water, in the style of dystopian realism, realistic perspective, xbox 360 graphics, surrealistic realism, emotive realism, soggy, eerily realistic --ar 9:16 --stylize 750 --v 6

chinese red blouse, in the style of dreamy and romantic compositions, floral explosions --ar 24:37 --stylize 750 --v 6



图片来自 <https://prompthero.com/midjourney-prompts>

# 文生音乐：Suno

Text-to-Music Generation: Suno

<https://suno.com>



# 文生视频：Sora

Text-to-Video Generation：Sora



视频来自 [https://www.tiktok.com/@openai/video/7365567845649960238?lang=zh\\_Hant](https://www.tiktok.com/@openai/video/7365567845649960238?lang=zh_Hant)





# 图生视频：可灵AI

Image-to-Video Generation: Kling AI

快影APP



奥特曼 VS 伊利亚：要发展还是要安全？





# 数字人：HeyGen

Digital Human: HeyGen

<https://app.heygen.com/>

闪剪APP



# 跨模态：Google Project Astra

Cross-Modal: Google Project Astra



2024 Google I/O大会

翻译：宝玉

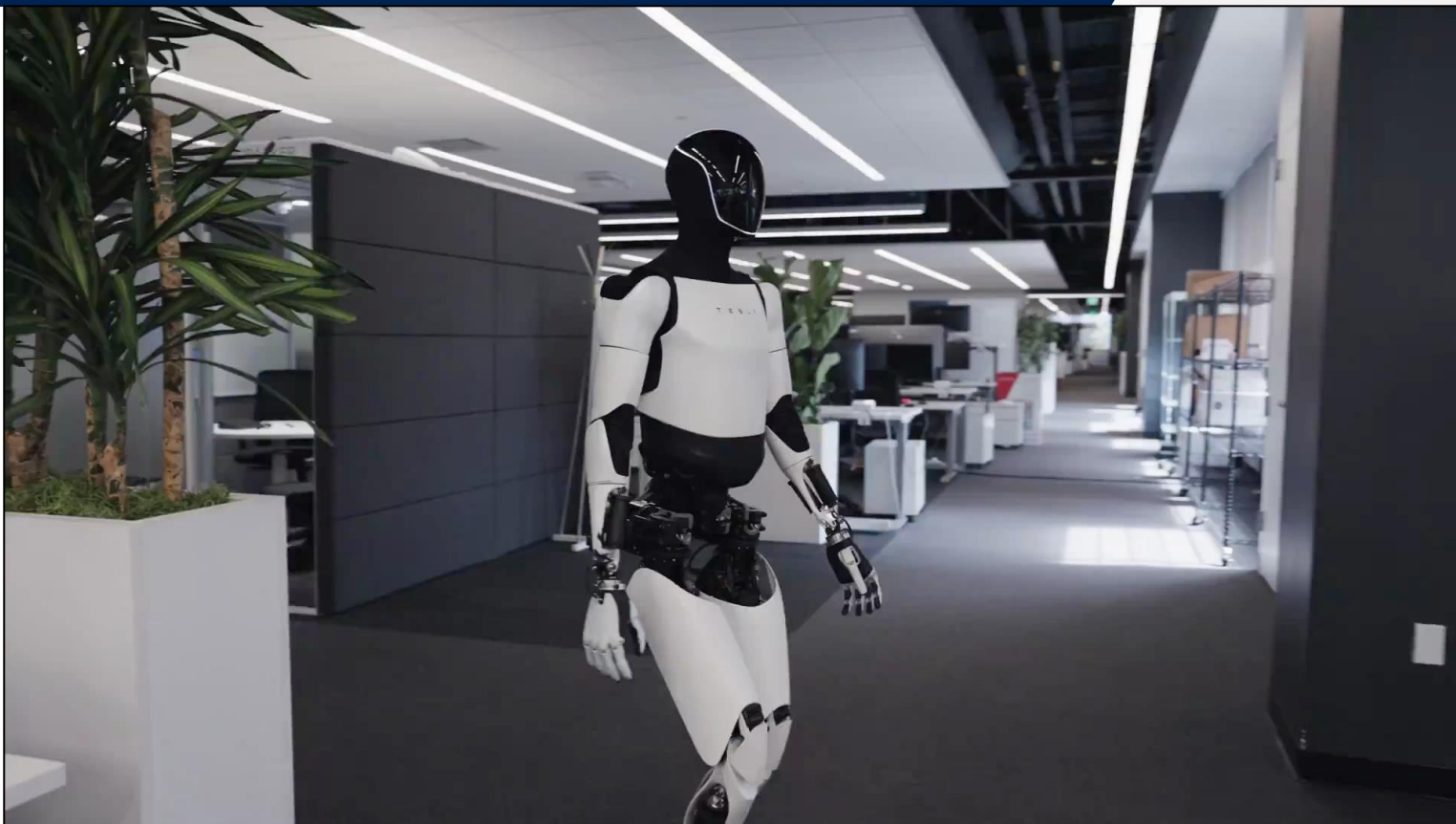
This is a two-part demo of Project Astra, Google DeepMind's vision for the future of AI assistants. Each part was captured in a single take, in real time.

这是 Project Astra 的两段演示视频。这展示了 Google DeepMind 对未来 AI 智能体的设想。每段视频均为单次拍摄、实时录制完成。

视频来自 <https://x.com/dotey/status/1790450693398041039>

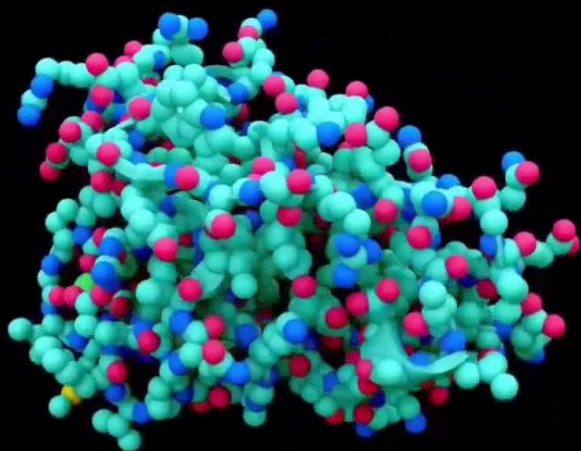
# 具身智能：Optimus

Embodied Intelligence: Optimus



# 蛋白质结构预测模型：AlphaFold 3

Protein Structure Prediction Model: AlphaFold 3



- **革命性的蛋白质折叠：**显著提升蛋白质结构预测准确性和速度
- **加速生物医学研究：**以接近实验的准确性预测蛋白质结构，促进对疾病的理解，推动新疗法和个性化医疗的发展
- **获2023年拉斯克基础医学研究奖**



## 观点三：信息差可能比想象中严重

Point 3: The information gap may be more severe than we imagine



# 47%的美国人不知道ChatGPT是什么

47% of Americans do not know what ChatGPT is

2024年5月

## AI AND THE FUTURE OF NEWS

MAY 2024

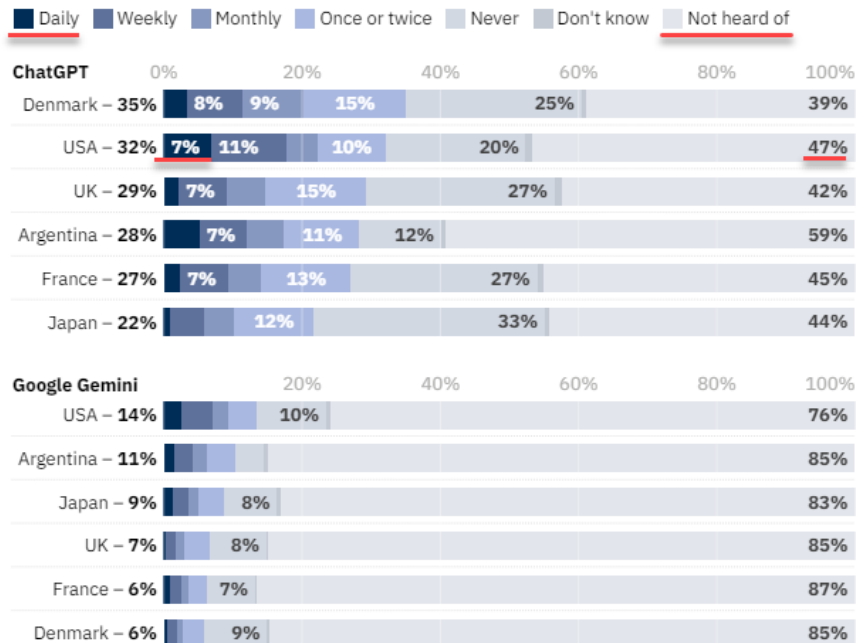
What Does the Public in Six Countries  
Think of Generative AI in News?

Richard Fletcher and Rasmus Kleis Nielsen



Figure 2. How frequently people use ChatGPT, Gemini, and Copilot

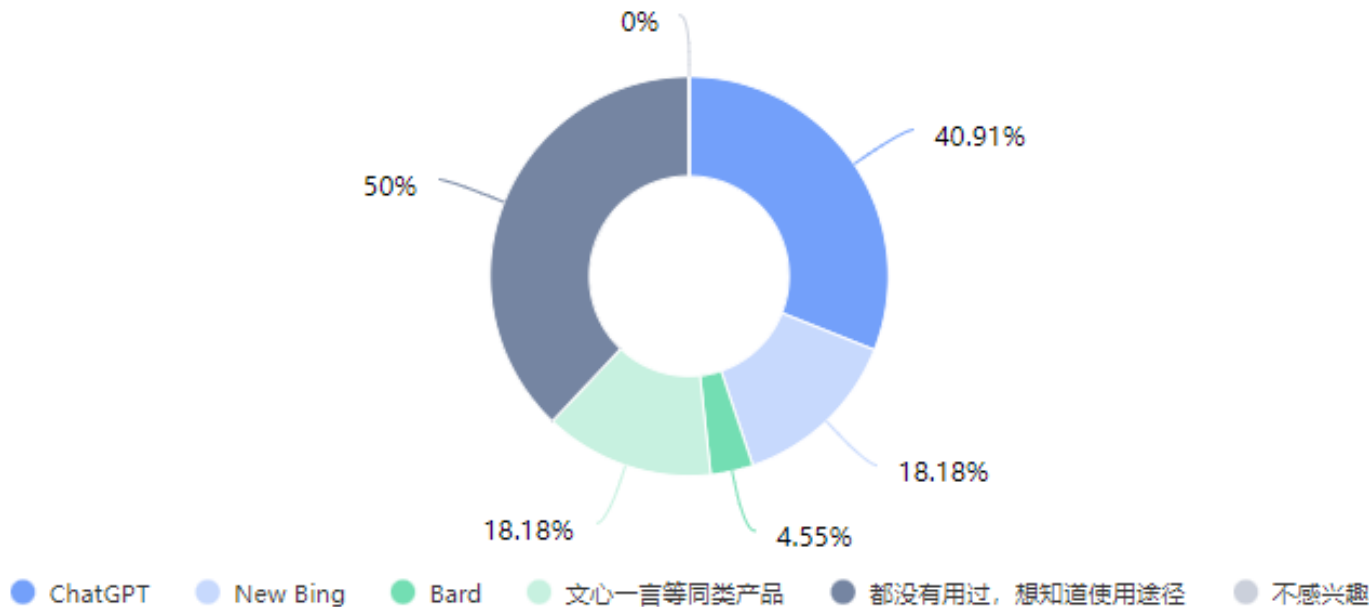
ChatGPT is the most widely used generative AI product, but few use it frequently.



2023年4月

# 50%的教师没有使用过ChatGPT

50% of SCU faculty have never used ChatGPT



使用过哪种人工智能聊天机器人



2024年5月

# 60%的教师没有使用过生成式AI工具

60% of SCU faculty have never used GenAI tools

5、您是否了解或使用过 生成式 AI ？

[单选题]

| 选项       | 小计 | 比例  |
|----------|----|-----|
| 了解，没使用过  | 18 | 30% |
| 不了解，没使用过 | 18 | 30% |
| 了解，使用过   | 24 | 40% |
| 本题有效填写人次 | 60 |     |

表格

饼状

圆环

柱状

条形

折线

您是否将生成式AI运用到教学或科研中？ [单选题]

| 选项       | 小计 | 比例     |
|----------|----|--------|
| 是        | 18 | 42.86% |
| 否        | 24 | 57.14% |
| 本题有效填写人次 | 42 |        |

表格

饼状

圆环

柱状

条形

折线



# 观点四：人工智能素养教育刻不容缓

Point 4: AI literacy education is urgently needed

# GPT之后信息环境发生了深刻变化

GPT has profoundly changed the information environment

- ChatGPT 用简单粗暴的方式为用户直接提供 “问题解决方案” [1]
- ChatGPT 改变了知识生产方式，也将改变用户获取知识和情报的方式 [2]
- AI 将成为科学研究、科技创新和经济活动的工具和基础设施 [3]
- AI 方法与工具快速筛选隐藏的特征及关系，有可能大幅度提高研究效率；  
通过发现事先不知道或根本没想到的特征、关系及规律，提高突破性颠覆性；  
探索新的理论与技术方向、新的框架或机制 [4]







吴恩达

- AI是一种通用技术，就像电力一样，不仅只有一个用途，而是有很多用途
- 让每个人普通人都拥有利用AI的能力，即AI平权运动，ChatGPT仅仅是开始

# 国际图联：制定政策、课程计划和策略

IFLA: Developing AI-related policies, curricula, and strategies

2023年8月21-25日



International  
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## IFLA Academic and Blog

News from academic and research libraries

HOME

### ARL's Hot Topics session to discuss the potential to change the mission of academic and research libraries

[Leave a reply](#)

Author: Siviwe Bangani, Director, Research Services, Stellenbosch University, South Africa

Artificial Intelligence (AI), especially the latest tool, ChatGPT, is the hottest topic in academic and research libraries (ARLs) at the moment. Many ARLs around the world have started to think about ways to adopt and adapt AI tools to their services and workflows. However, the pace with which these libraries are adopting AI technologies seem to differ by continent and country and even within the same country. There is much to learn from the early adopters of these technologies that can be shared with other ARLs around the world. In addition, it is important to learn about the immediate challenges that the adoption of these technologies present and what the long-term opportunities are and how these pose an existential threat to ARLs in general. There are growing concerns

<https://2023.ifla.org/>



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## Information Literacy Section Call for Papers: "Let's Work Together to Develop Critical Thinkers in the ChatGPT Era"

07 April 2023

The **IFLA Information Literacy Section (ILS)** announces its call for speaker proposals for presentations at their Open Session at the **IFLA World Library and Information Congress (WLIC)** in Rotterdam, Netherlands, August 21-25, 2023.

**Theme: Let's Work Together to Develop Critical Thinkers in the ChatGPT Era**

As we continue to move into a more digital age, it is becoming increasingly important to develop critical thinking skills to navigate the vast amount of information available.

Libraries should be working together to 1) develop policies, lesson plans and strategies while embracing ChatGPT and related AI technologies; 2) address issues and concerns about the use of AI in libraries through critical lenses; 3) prepare learners for a sustainable future.

### More news

**Time to realise libraries' potential to support development: IFLA and the UN SDG Summit**

15 September 2023

**Videos and slides for IFLA ARL "Hot Topics" 2023 session now available!**

13 September 2023

**Advocacy look ahead – Key dates September-December 2023**

09 September 2023

[SHOW ALL NEWS](#)

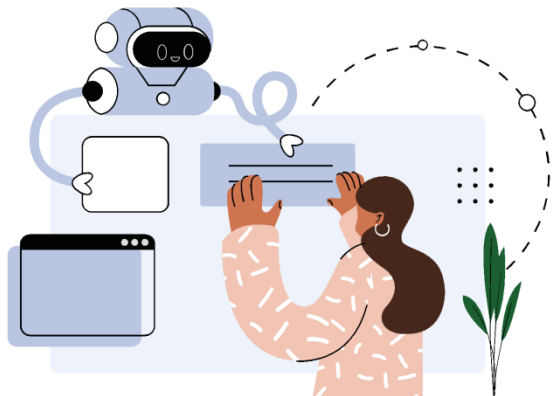
2023年9月7日

# UN教科文组织：教育与研究中GenAI使用指南

UNESCO: Guidance for generative AI in education and research



## Guidance for generative AI in education and research



Education  
2030

- 支持规划适当的法规、政策和人员能力发展计划，确保生成式人工智能（GenAI）成为真正有益于教师、学习者和研究人员的工具
- 强调政府批准人工智能课程的必要性，包括在学校教育、职业技术教育和培训中设置相关课程

<https://unesdoc.unesco.org/ark:/48223/pf0000386693>



# 国际图联：制定图书馆人工智能战略对策

IFLA: Developing a library strategic response to Artificial Intelligence

2023年11月20日

Developing a library strategic response to artificial intelligence/

IFLA

International Federation of Library Associations and Institutions

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You are here: Home > Artificial Intelligence Special Interest Group > Developing a library strategic response to Artificial Intelligence

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Developing a library strategic response to Artificial Intelligence

The purpose of this working document is to set out considerations relevant for libraries developing a strategic response to Artificial Intelligence.

The text is organised around developing a set of questions that prompt reflection and action (section 4). It is hoped that the document can support local decision making about AI.

Authorship: This working document for discussion was prepared by Andrew Cox, as co-chair of the Artificial Intelligence SIG. Comments for further iterations of the document are invited via the [comment form](#) - if you have difficulty accessing this form send comments to [a.m.cox@sheffield.ac.uk](mailto:a.m.cox@sheffield.ac.uk).

Developing a library strategic response to artificial intelligence/

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All these practices align to professional knowledge of information governance and stewardship, but there is a need to translate this knowledge to the domain of data.

Strategy 3: Promoting AI literacy to enhance organisational and societal AI capabilities

The strategy most aligned to existing library practices and librarian identities, particularly in university, school and public libraries, is to take a lead role in promoting AI literacy. There is a widespread understanding that the public, as citizens and workers need to understand the new technologies. Students, whatever discipline they are studying, need such knowledge for employability.

Librarians have already developed information literacy offerings, and many dimensions of AI literacy could be folded within these. They have developed the pedagogic knowledge and skills needed.

AI literacy is likely to include the ability to identify when AI is being used; to appreciate the differences between narrow and general AI; to understand what types of problem AI is good at solving; to understand how machine learning models are trained. It would also include awareness of ethical issues such as bias, privacy, explainability and social impact.

Since AI is based on data, data literacy is recognised to be a component of AI literacy. Algorithmic literacy is a concept that has already been developed to describe awareness of how services such as search and recommendation are increasingly shaped by algorithms to personalise and adapt content, but also can limit the visibility of information and create filter bubble effects. More formally it has been defined as "being aware of the use of algorithms in online applications, platforms, and services, knowing how algorithms work, being able to critically evaluate algorithmic decision-making as well as having the skills to cope with or even influence algorithmic operations" (Dogruel et al, 2022: p.4). Extending algorithmic literacy beyond the search is relevant to AI literacy.

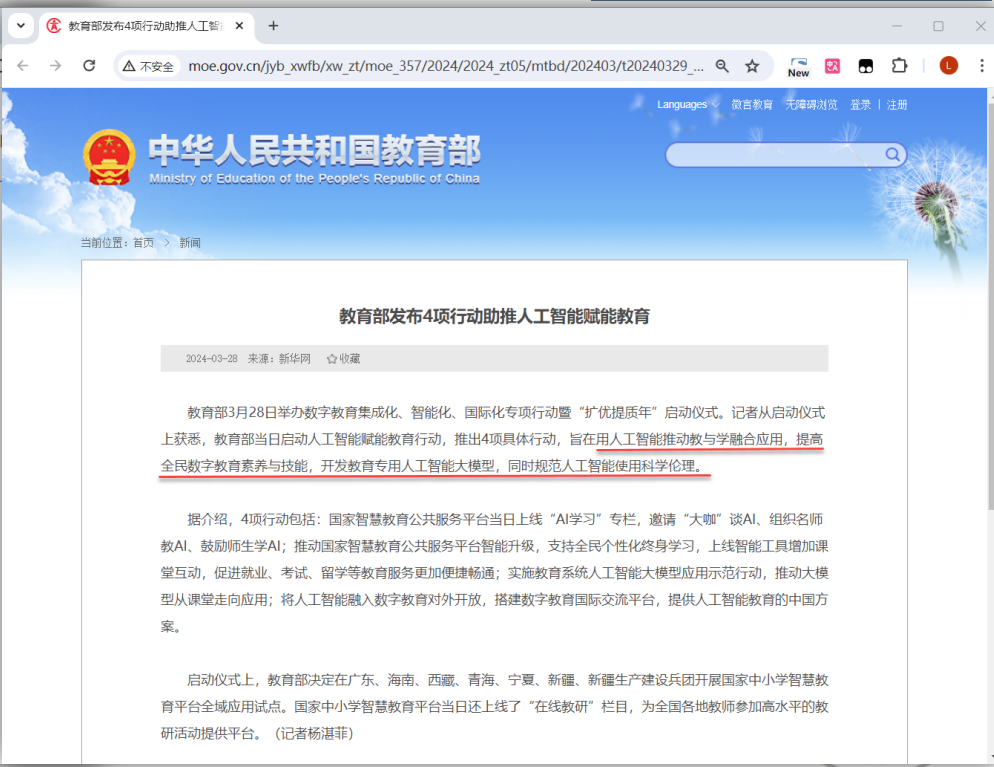
<https://www.ifla.org/developing-a-library-strategic-response-to-artificial-intelligence/>

# 教育部：助推人工智能赋能教育

Ministry of Education of China: Promoting AI-powered education

2018年4月2日

2024年3月28日

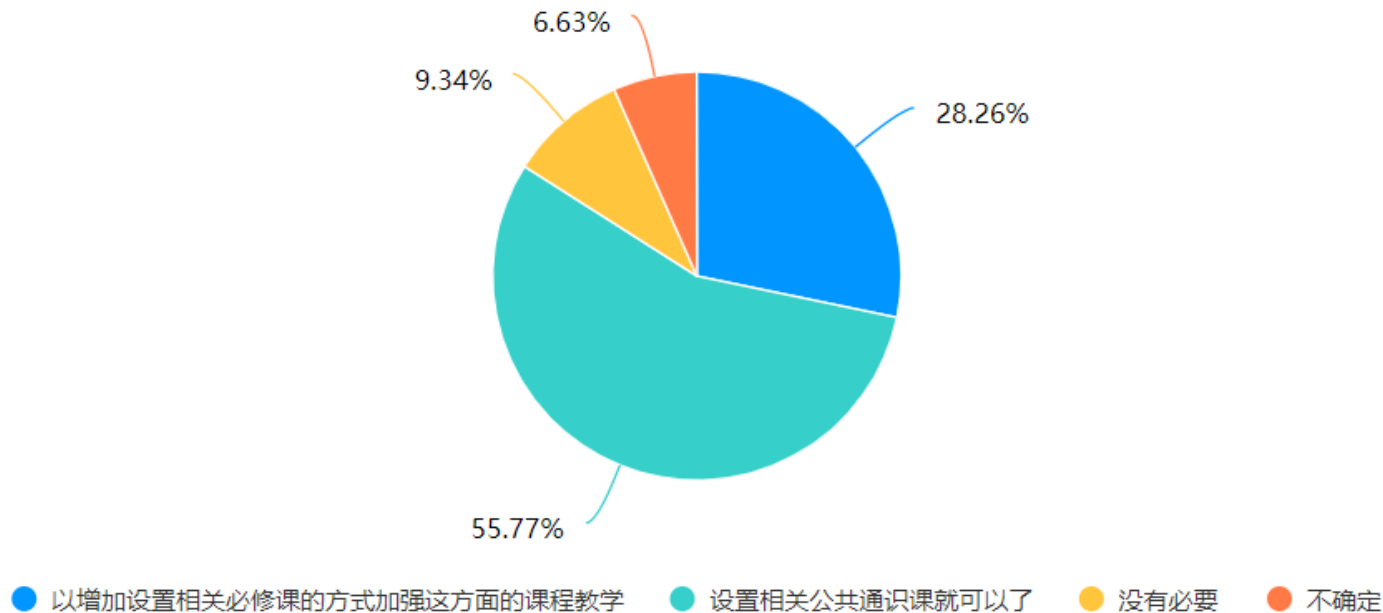




2023年4月

# 超过80%的师生认为应该加强相关课程教学

Over 80% of SCU faculty and students support strengthening AI courses



ChatGPT等AI技术是否应该纳入大学课程教学?



# 高校人工智能课程建设进行时

Ongoing Development of AI Courses in Universities

“AI大课”12问！复旦将在2024-25学年推出至少100门AI领域课程

作者：赵天润 摄影： 视频： 来源：融媒体中心 发布时间：2024-06-05

从今年秋季学期开始，复旦大学将在2024-2025学年推出至少100门AI领域课程，加快科学智能创新生态构建，打开AI+融合创新人才培养新局面。一场人工智能课程体系建设和教育模式改革的大会战（下文简称“AI大课”），正在如火如荼。

通过一学年努力，到明年秋季学期开学，复旦将实现AI“三个渗透率100%”——AI课程覆盖全体本研学生，AI+教育覆盖全部一级学科，AI素养能力要求覆盖全部专业。

复旦为什么要举全校之力打造“AI大课”？100门AI课程如何在确保质量的情况下短时间内落地？有什么标杆性课程？从中学生可以收获什么？……就社会和师生关心的12个问题，我们邀请AI大课建设团队和授课教师代表，一起来解答。

文化校历

查看更多

<

2024.6.24

>

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| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
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## 四川大学文件

川大教〔2024〕35号

### 关于印发《四川大学人工智能素养教育嵌入本科教育教学行动指南(试行)》的通知

校内各教学单位：

为提升广大师生人工智能素养，鼓励师生在本科教育教学中科学合理地应用人工智能技术，以“人工智能+”赋能教育助力本科教育教学全要素建设，为一流本科教育教学改革提供科学性、系统性和前瞻性的指导，经前期调研、意见征求、专题会议研究，特制定《四川大学人工智能素养教育嵌入本科教育教学行动指南（试行）》，现印发给你们，请遵照执行。



# 信息素养课程和培训中的生成式AI主题

GenAI Themes in Information Literacy Courses and Training

## 生成式AI

### ChatGPT: AI的文艺复兴

开始时间: 03月18日(周一) 19:30 地点: 工学馆202网络互动教室

预约

已预约: 30

### 暗影中的智能: 揭秘ChatGPT的局限性与咒语之术

开始时间: 03月26日(周二) 19:30 地点: 工学馆202网络互动教室

已预约: 28

### AI绘图解锁: 创意无极限, 你准备好了吗?

开始时间: 04月09日(周二) 16:00 地点: 工学馆202网络互动教室

已预约: 17

### AI幻境之旅: SORA领航, 探寻视频生成的奥秘

开始时间: 04月25日(周四) 16:00 地点: 工学馆202网络互动教室

已预约: 8

### 零基础打造你的个人AI助手

开始时间: 05月12日(周日) 16:00 地点: 工学馆202网络互动教室

已预约: 14

### AI与法律: 文科生如何做人工智能预测模型

开始时间: 05月17日(周五) 16:00 地点: 工学馆202网络互动教室

已预约: 1

### 生成式AI与著作权——我们在哪里? 我们要去哪里?

开始时间: 05月21日(周二) 19:30 地点: 工学馆202网络互动教室

已预约: 2

### 人工智能风云录与OpenAI权力的游戏

开始时间: 06月06日(周四) 19:30 地点: 工学馆202网络互动教室

已预约: 3

## 《知者不惑: 后真相时代的信息素养》教学安排

|      | 星期三10-12大节 (19:20) , 江安一教A106 |
|------|-------------------------------|
| 第3周  | 信息辨伪: 成为一个不受人惑的人 (公管学院 党跃武)   |
| 第4周  | 探奥索隐: 解析信息资源发现之道 (图书馆 张盛强)    |
| 第5周  | 智启未来: 从搜索引擎到ChatGPT (图书馆 胡琳)  |
| 第6周  | 为学有道: 掠夺性出版与学术不端 (图书馆 胡琳)     |
| 第7周  | 抽丝剥茧: 揭开假新闻背后的真相 (文新学院 王志华)   |
| 第8周  | 识破假象: 从神秘人物到网红产品 (图书馆 胡琳)     |
| 第9周  | 后此谬误: 相关性不等于因果关系 (数学学院 何家亮)   |
| 第10周 | 数字迷雾: 防范数学的滥用与误用 (数学学院 吕振超)   |
| 第11周 | 眼见不实: 图像与视频的欺人之术 (网络安全学院 何沛松) |
| 第12周 | 追根溯源: 端午只能安康不能快乐 (图书馆 胡琳)     |
| 第13周 | 期末考核                          |



# 生成式AI主题网页

GenAI Thematic Webpage



# 参考文献

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