



以大语言模型提示工程促进英语教学提质升级

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要点



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问商素养及人机协同模式



大语言模型

大语言模型

教学智能应用

人机协同模式

- 大语言模型依据海量语料训练而成。
- 文本之外，也涉及图片、音视频等多模态数据。
- 大语言模型**语言理解**及**语言生成**能力俱佳。
- 用户以自然语言通过问答方式运用大模型，几乎无技术门槛。
- 在教学中，可用于编写**教学**材料、设计**教学**任务、充当智能**学**伴、**评**阅学生写作、助力**教学**研究，等等。



大语言模型原理简析：物以类聚，词以群分。

大语言模型

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人机协同模式

Word	Context: wings	Context: engine	Context: sky
bee	3	0	2
eagle	3	0	3
goose	2	0	4
helicopter	0	2	4
drone	0	3	3
rocket	0	4	2
jet	0	1	1

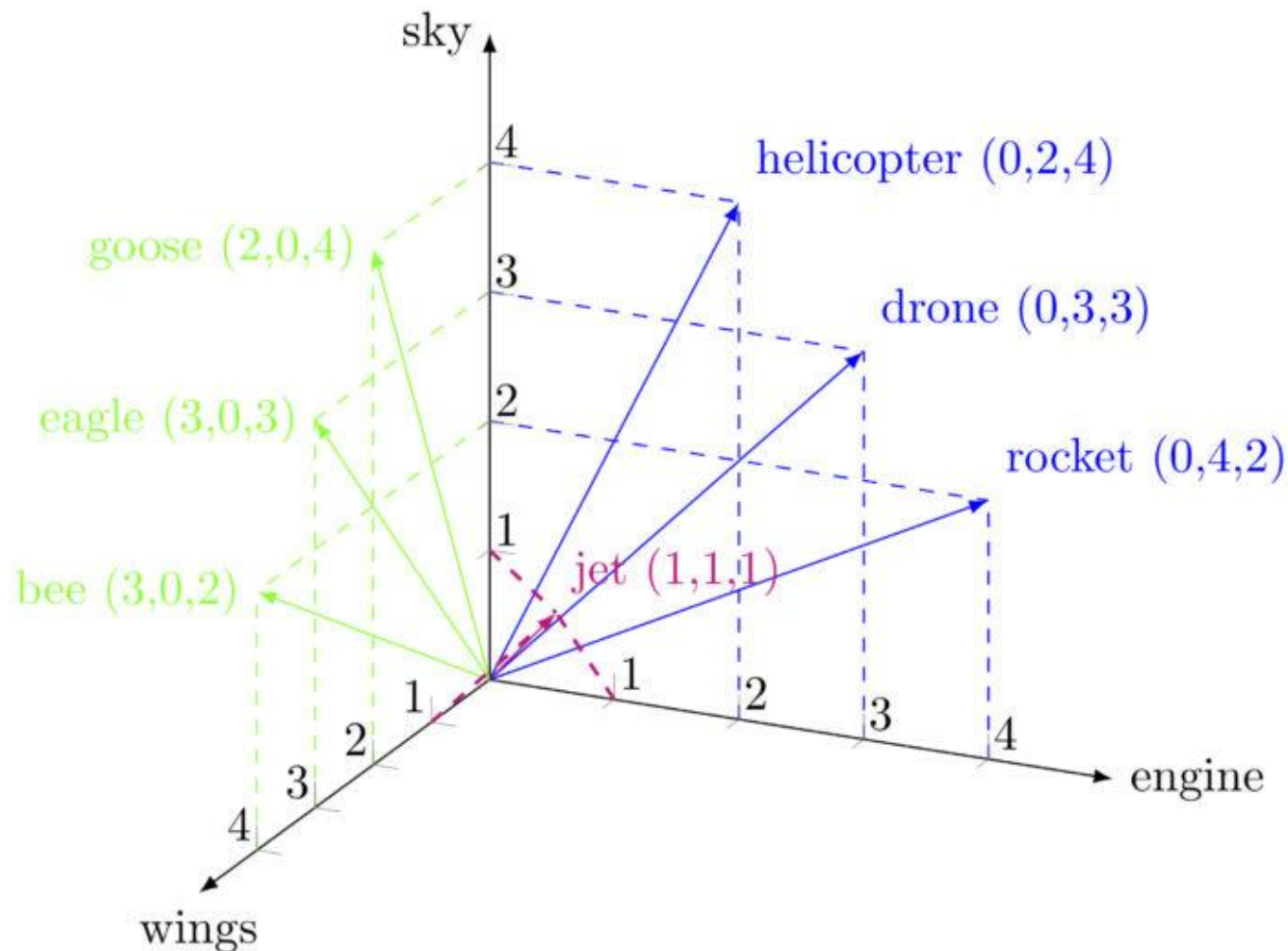


大语言模型：词向量

大语言模型

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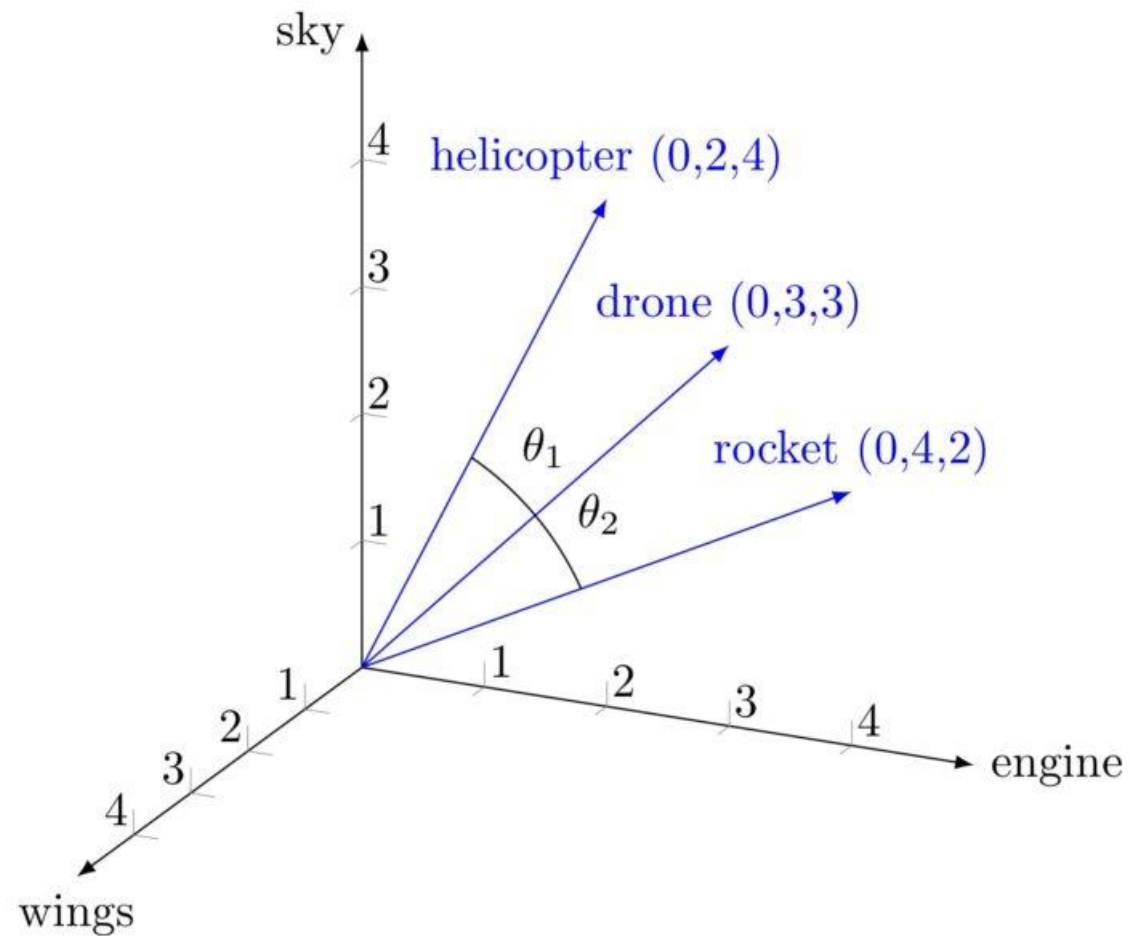


大语言模型：余弦相似度

大语言模型

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人机协同模式



Continue this sentence:

The promise of large language models is that they _____.



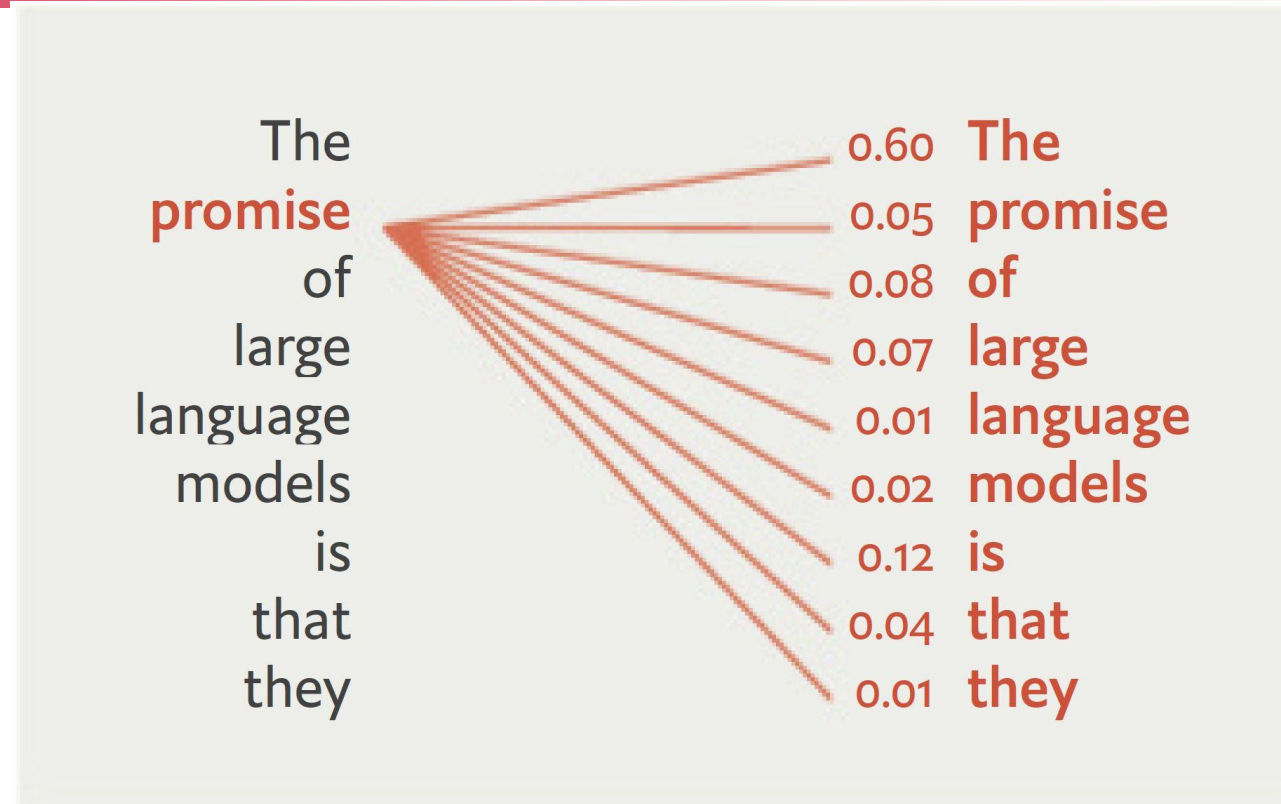
vocabulary
tongue **language**
speech
facsimile
aptitude talent **model** replica
potentiality ability imitation duplicate
potential capability representation
promise capacity lookalike

2. Embedding

Token IDs are put into a “meaning space” (2D shown; GPT-3’s is 12,288D). Words with similar meanings tend to be located closer together

Continue this sentence:

The promise of large language models is that they _____.



3. Attention

The model weights each pair of tokens, showing how much to “pay attention” to one when processing the other.

This bakes in an ability to form connections

Continue this sentence:

The promise of large language models is that they _____.



The promise of large language models is that they **can** 62%

will 11%

are 7%

capture 2%

could 2%

4. Completion

The result after attention is a series of probabilities, for each token in the LLM's vocabulary, of that word going next. The model chooses one. Rinse and repeat

大语言模型在英语教学中的角色



- 许家金、赵冲，2024，大语言模型在英语教学中的角色，《外语教育研究前沿》（1）：3-10。
 1. 语言顾问 (language advisor)
 2. 语伴 (language partner)
 3. 语言测评专家 (language assessment specialist)



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作为语言顾问：生成不同语域同题文本

Could you write two 100-word essays on the topic “The Pros and Cons of Artificial Intelligence”? One should be in a formal style, and the other in an informal style.



- Formal Style:
- Artificial Intelligence (AI) is a rapidly evolving technology that has manifold implications. On the one hand, AI streamlines operations, boosts productivity, and augments human capabilities by automating complex tasks. It holds the potential to revolutionize sectors like healthcare, finance, and transportation. Conversely, AI presents challenges such as job displacement and ethical dilemmas. Moreover, AI's decision-making processes can be opaque, leading to concerns about accountability and bias. Therefore, while AI promises unprecedented advancements, it necessitates careful governance to ensure equitable benefits and mitigate potential pitfalls.
- Informal Style:
- So, AI's pretty cool, right? It makes our lives easier by doing the hard stuff for us and could totally change how we do things in places like hospitals and banks. But, there's a downside too. Some folks might lose their jobs because a robot can do it, and sometimes these AI systems can be kinda sneaky about how they make decisions, which isn't always fair. We gotta make sure we keep an eye on it, so the cool benefits don't get overshadowed by the not-so-great stuff.



- **Formal:** Artificial Intelligence (AI) is a rapidly evolving technology that has manifold implications. On the one hand, AI streamlines operations, boosts productivity, and augments human capabilities by automating complex tasks
- **Informal:** So, AI's pretty cool, right? It makes our lives easier by doing the hard stuff for us and could totally change how we do things in places like hospitals and banks.



作为学伴：生成口语练习

- Please prepare for a voice role-play exercise designed as an interpretation practice session for non-native English speakers, where you will play the role of a native English speaker. In this scenario, you'll act as the leader of a marketing team in an international business meeting with your counterpart from your Chinese business partner. The meeting's focus is on the promotion of a new Chinese game being released in English-speaking countries. Initiate the conversation by discussing the timeline and budget of the marketing campaign.



Sure, I'll start the role-play now.

- Good morning, everyone. It's great to see you all here. I'm excited to discuss our plans for the launch of this new game. First, let's talk about the timeline. We want to ensure we have enough time for a strong marketing push. What are your thoughts on a launch date? Also, it's important to consider our budget. We need to balance a strong campaign with cost-effectiveness.



作为词典专家：生成多语多解词典

- 我是一名词典专家，请参照Oxford Advanced Learner's Dictionary 10th Edition帮我给英语单词model编写一个词条。以下是一个参考词条样例。每个义项可提供1个英文例句，请为英文例句提供中文、日文、俄文、法文、德文、西班牙文、阿拉伯文七种语言的译文。
- **language** A1 /'læŋgwɪdʒ/ noun
- OF A COUNTRY 1 A1[C] the system of communication in speech and writing that is used by people of a particular country or area : the English language ◇ It takes a long time to learn to speak a language well. ◇ All the children must learn a foreign language. ◇ German is my native language. ◇ Is English an official language in your country? ◇ The novel has been translated into over twenty languages. ◇ She has a good command of the Spanish language. ◇ Good language skills are essential in this job. ◇ They fell in love in spite of the language barrier.



Prompt

- I am working on creating an English-Chinese bilingual dictionary entry for the word ‘agricultural’, targeted at Chinese vocational students in agriculture and forestry. Below is a sample entry for the word ‘plant’. Please create the entry for ‘agricultural’ by closely following the format and structure of the ‘plant’ entry.



plant /pl{nt/ n. 植物

- plant breeding 植物育种
 - plant growth 植物生长
 - medicinal plant 药用植物
-
- That diversity has been the basis for plant breeding.
 - 这种多样性是植物育种的基础。



agricultural / ,ægrɪ'kʌltʃərəl/ *adj.* 农业的

- agricultural development 农业发展
- agricultural technology 农业技术
- agricultural production 农业生产

- Agricultural development is vital for economic growth in rural areas.
- 农业发展对农村地区的经济增长至关重要。



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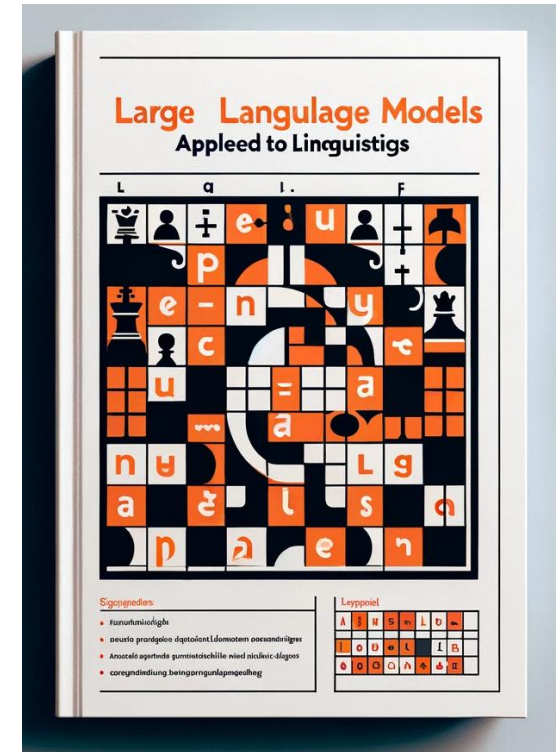
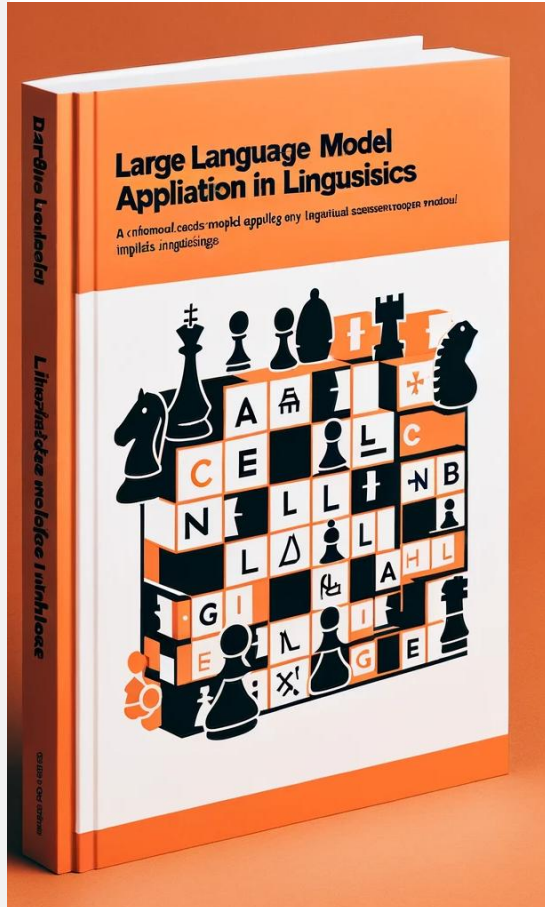
许家金 赵 冲 孙铭辰 | 编著 |





Prompt

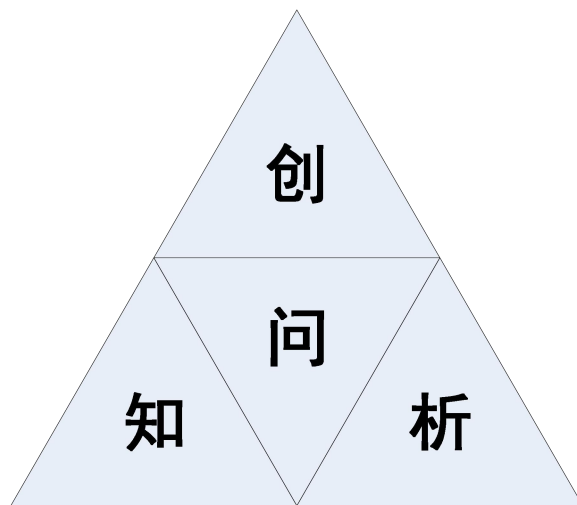
- 请帮我设计一个大语言模型应用于语言学的学术图书封面。主体图案是一个国际象棋棋盘，棋盘上是crossword puzzle 的样式。主体颜色为橙色。请采用极简风格。





问商素养及人机协同模式

- 语言如行棋、智能似处子、模型即分布、提示乃问商、语料可成事
- 【图书作者】 + 【人工智能】 + 【美术编辑】 三方协作





数字技术与外语教育丛书系列图标

Before



AI



After



