

讲义

Artificial intelligence

人工智能

Think, then act

先思考，再行动

Governments must not rush into **policing** AI

政府不应急于监管人工智能

选自：The Economist October 28th 2023 edition Leaders

Will artificial intelligence kill us all? Some technologists sincerely believe the answer is yes. In one **nightmarish scenario**, AI eventually outsmarts humanity and goes **rogue**, taking over computers and factories and filling the sky with killer **drones**. In another, large language models (LLMs) of the sort that power generative AIs like Chatgpt give bad guys the know-how to create devastating **cyberweapons** and deadly new **pathogens**.

人工智能会杀死我们所有人吗？一些技术专家真诚地认为答案是肯定的。在一种噩梦般的情况下，人工智能最终比人类更聪明，变得不听话，接管计算机和工厂，让无人机杀手充斥天空。在另一种情况下，为 Chatgpt 等生成式人工智能提供动力的大型语言模型 (LLM) 为坏人提供了制造毁灭性网络武器和致命新病原体的诀窍。

【词汇】

1. **police** /pə'li:s/ v. 四级 高考 to make sure that a particular set of rules is obeyed 监督；监管

例：The profession is policed by its own regulatory body.

这个行业由其自律机构监督。

<同义替换>monitor

2. **nightmarish** /'naitmerɪʃ/ adj. very frightening and unpleasant; very difficult to deal with 噩梦般的；令人不愉快的

例：She described a nightmarish scene of dead bodies lying in the streets.

她描述了街头遍地横尸的噩梦般场景。

3. **scenario** /sə'næriəʊ/ adj. GRE GMAT 考研 专八 a description of how things might happen in the future 设想；方

案：预测

4. **rogue** /rəʊg/ adj. that behaves differently from others of its kind, often causing damage 不寻常的，破坏性的

例：My phone has gone rogue on me—it keeps switching itself off.

我的手机不听使唤，总是自动关机。

5. **drone** /drəʊn/ n. GRE 考研 专八 an aircraft without a pilot, controlled from the ground, used for taking photographs, dropping bombs, delivering goods, etc. 无人驾驶飞机

6. **cyberweapon** : a piece of computer software or hardware used to commit cyberwarfare 网络武器

7. **pathogen** /'pæθədʒən/ n. a thing that causes disease 病原体

【长难句】

In another, large language models (LLMs) of the sort that power generative AIs like Chatgpt give bad guys the know-how to create devastating cyberweapons and deadly new pathogens.

句子主干部分为 large language models (LLMs) give bad guys the know-how, 意为：大型语言模型（LLM）为坏人提供了诀窍

of the sort that power generative AIs 为**定语从句**，修饰限定 large language models (LLMs)，意为：为生成式人工智能提供动力的（大型语言模型）

like Chatgpt 为**状语**，举例说明，意为：像 Chatgpt 的（生成式人工智能）

In another 是**状语**，意为：另一方面

to create devastating cyberweapons and deadly new pathogens 为**后置定语**，修饰限定 know-how，意为：制造毁灭性网络武器和致命新病原体的（诀窍）

It is time to think hard about these **doomsday** scenarios. Not because they have become more probable—no one knows how likely they are—but because policymakers around the world are **mulling** measures to guard against them.

现在是认真思考这些末日情景的时候了。不是因为它们变得更有可能发生——没有人知道它们发生的可能性有多大——而是因为世界各地的政策制定者都在认真思考防范它们的措施。

【词汇】

1. **doomsday** /'du:mzdeɪ/ n. 专八 Doomsday is a day or time when you expect something terrible or unpleasant is going to happen. 末日；灾难日

2. **mull** /mʌl/ v. If you mull something, you think about it for a long time before deciding what to do. 仔细考虑;反复思考

例: I need some time to mull it over before making a decision.

在作出决定之前我需要一些时间来认真琢磨一下。

Governments cannot ignore a technology that could change the world **profoundly**, and any **credible** threat to humanity should be taken seriously. Regulators have been too slow in the past. Many wish they had acted faster to police social media in the 2010s, and are keen to be **on the front foot** this time. But there is danger, too, in acting **hastily**. If they go too fast, policymakers could create global rules and institutions that are aimed at the wrong problems, are ineffective against the real ones and which **stifle** innovation.

各国政府不能忽视一项可能深刻改变世界的技术，任何对人类的可信威胁都应得到认真对待。过去，监管机构的行动过于迟缓。许多人希望他们在 2010 年代能更快地采取行动监管社交媒体，并希望这次他们能走在前面。但仓促行事也有危险。如果操之过急，政策制定者可能会制定针对错误问题的全球规则和制度，这些规则和制度对真正的问题无效，而且会扼杀创新。

【词汇】

1. **profoundly** /prə'faʊndli/ adv. 考研 in a way that has a very great effect on somebody/something 极大地；深刻地

例: We are profoundly affected by what happens to us in childhood.

童年发生的事深深地影响着我们。

2. **credible** /'kredəbl/ adj. 考研 专八 雅思 that can be believed or trusted 可信的；可靠的

例: They haven't yet come up with a credible explanation.

他们还没有提出可信的解释。

3. **hastily** /'heɪstɪli/ adv. 专八 very quickly, because you are in a hurry, especially when this has bad results 匆忙地；

仓促而就地；草率地

例: She hastily changed the subject.

她匆匆换了个话题。

4. **stifle** /'staɪfl/ v. 专八 to prevent something from happening; to prevent a feeling from being expressed 压制；扼

杀；阻止；抑制

例: They hope the new rules will not stifle creativity.

他们希望新规则不会压制创新。

<同义替换>suppress

【词组】

1. **on the front foot** : taking positive steps to achieve something 走在前面；主动；占据优势

例：He has been firmly on the front foot, calling for politicians and police to intervene.

他一直坚定地走在前面，呼吁政界人士和警方进行干预。

The idea that AI could drive humanity to extinction is still entirely **speculative**. No one yet knows how such a threat might materialise. No common methods exist to establish what counts as risky, much less to evaluate models against a **benchmark** for danger. Plenty of research needs to be done before standards and rules can be set. This is why a growing number of tech executives say the world needs a body to study AI much like **the Intergovernmental Panel on Climate Change** (IPCC), which tracks and explains global warming.

人工智能可能会让人类走向灭亡，这完全是一种推测。目前还没有人知道这种威胁将如何实现。目前还没有通用的方法来确定什么是有风险的，更不用说根据危险基准来评估模型了。在制定标准和规则之前，需要进行大量的研究。这就是为什么越来越多的科技高管表示，世界需要一个研究人工智能的机构，就像跟踪和解释全球变暖的政府间气候变化专门委员会（IPCC）一样。

【词汇】

1. **speculative** /'spekjələtɪv/, /'spekjələrtɪv/ adj. 考研 专八 based on guessing or on opinions that have been formed without knowing all the facts 推测的；猜测的；推断的

例：The report is highly speculative and should be ignored.

这个报道推测的成分很大，应该不予理会。

2. **benchmark** /'bentʃmɑ:rk/ n. GMAT 专八 something that can be measured and used as a standard that other things can be compared with 基准

【特殊名称】

1. **the Intergovernmental Panel on Climate Change** : The Intergovernmental Panel on Climate Change is an intergovernmental body of the United Nations. Its job is to advance scientific knowledge about climate change caused by human activities. 政府间气候变化专门委员会

政府间气候变化专门委员会是联合国的一个政府间机构。其职责是增进有关人类活动造成的气候变化的科学知识。

A rush to regulate away **tail risks** could distract policymakers from less **apocalyptic** but more pressing problems. New laws may be needed to govern the use of copyrighted materials when training LLMs, or to define privacy rights as models **guzzle** personal data. And AI will make it much easier to produce disinformation, a **thorny** problem for every society.

急于通过监管消除尾部风险，可能会分散政策制定者的注意力，使他们忽视不那么毁灭性但更紧迫的问题。可能需要制定新的法律来规范在训练大型语言模型时使用受版权保护的材料，或在模型吞噬个人数据时界定隐私权。人工智能将使制造虚假信息变得更容易，这对每个社会来说都是一个棘手的问题。

【词汇】

1. **apocalyptic** /əˌpɑːkəˈlɪptɪk/ adj. **GRE** **GMAT** describing very serious damage and destruction in past or future events
描述（历史）大动乱的；预示（未来）大灾变的

例：These eerie, apocalyptic views are due to smoke and ash from fires being pulled into the air.

这些诡异的，世界末日般的景象是由于烟雾和火山灰充斥在空气中造成的。

2. **guzzle** /ˈɡʌzl/ v. **GRE** to drink something quickly and in large amounts. In British English it also means to eat food quickly and in large amounts. 狂饮；猛喝；狼吞虎咽

例：Local governments should refrain from recklessly pursuing GDP growth by investing in sectors that guzzle energy and spew out pollution.

当地政府应避免盲目追求 GDP 增长而投资于一些狂烧能源，制造污染的生产部门。

3. **thorny** /ˈθɔːrni/ adj. causing difficulty or disagreement 棘手的；麻烦的；引起争议的

例：They must tackle the thorny issue of refugees to negotiate a final settlement.

他们必须解决棘手的难民问题，以谈判达成最终解决方案。

【特殊名称】

1. **tail risk** : Tail risk is the risk of an asset or portfolio of assets moving more than 3 standard deviations from its current price. 尾部风险

尾部风险是指某项资产或资产组合的价格波动超过其当前价格 3 个标准差的风险。

Hasty regulation could also stifle competition and innovation. Because of the computing resources and technical skills required, only a handful of companies have so far developed powerful “frontier” models. New regulation could easily entrench the incumbents and block out competitors, not least because the biggest model-makers are working closely with governments on writing the rule book. A focus on extreme risks is likely to make regulators wary of open-source models, which are freely available and can easily be modified; until recently the White House was rumoured to be considering banning firms from releasing frontier open-source models. Yet if those risks do not materialise, restraining open-source models would serve only to limit an important source of competition.

仓促监管还可能扼杀竞争和创新。由于需要计算资源和技术技能，迄今为止只有少数几家公司开发了强大的“前沿”模型。新的监管条例可以很容易地巩固现有企业的地位，并将竞争者排除在外，这主要是因为最大的模型制造商正在与政府密切合作，共同编写监管规则。对极端风险的关注可能会使监管者对开源模型产生戒心，因为开源模型可以免费获取，而且很容易修改；直到最近，还有传言称白宫正在考虑禁止企业发布前沿开源模型。然而，如果这些风险没有成为现实，限制开源模型只会限制一个重要的竞争来源。

【词汇】

1. **frontier** /frʌn'tɪr/ n. 四级 GMAT 高考 考研 the limit of something, especially the limit of what is known about a particular subject or activity (学科或活动的) 尖端, 边缘
2. **entrench** /ɪn'trentʃ/ v. to establish something very strongly so that it is very difficult to change 使处于牢固地位; 牢固确立
例: Rather than address its shortcomings, this will only entrench the inferior form of globalization.
这样做非但不能弥补全球化的不足, 反而会进一步巩固次等形式的全球化。
3. **open-source** /,əʊpən 'sɔ:rs/ adj. used to describe software for which the original source code is made available to anyone (软件) 开放源代码的, 提供源程序的
4. **rumour** /'ru:mər/ v. 四级 考研 to be reported as a rumour and possibly not true 谣传; 传说
例: He was rumoured to be involved in the crime.
有传言说他卷入了这桩罪行。
5. **serve** /sɜ:rv/ v. 四级 高考 to have a particular effect or result 产生…的效果 (或结果)
例: The attack was unsuccessful and served only to alert the enemy.
进攻未奏效, 反而使敌人警觉起来。

【词组】

1. **block out** : prevent from entering 阻挡

例：Playing music loudly- especially to block out background noise-can damage hearing.

大声播放音乐——尤其是为了屏蔽环境噪音大声播放音乐——也会损害听力。

Regulators must be prepared to react quickly if needed, but should not be rushed into setting rules or building institutions that turn out to be unnecessary or harmful. Too little is known about the direction of generative AI to understand the risks associated with it, let alone manage them.

The best that governments can do now is to set up the infrastructure to study the technology and its potential **perils**, and ensure that those working on the problem have adequate resources. In today's **fractious** world, it will be hard to establish an IPCC-like body, and for it to thrive. But bodies that already work on AI-related questions, such as the OECD and Britain's **newish** Frontier AI Taskforce, which aims to gain access to models' **nuts and bolts**, could work closely together.

监管机构必须做好准备，在必要时迅速做出反应，但不应匆忙制定规则或建立最终被证明是不必要或有害的制度。人们对生成式人工智能的发展方向知之甚少，无法理解与之相关的风险，更不用说管理这些风险了。

政府现在能做的最好的事情就是建立基础设施来研究这项技术及其潜在的危险，并确保那些致力于解决这个问题的人有足够的资源。在当今这个纷争不断的世界里，要建立一个类似IPCC的机构并让它茁壮成长是很难的。但那些已经在研究人工智能相关问题的机构，如经合组织和英国新成立的前沿人工智能工作组（该工作组旨在获取模型的具体细节），可以密切合作。

【词汇】

1. **peril** /'perəl/ n. 六级 GRE 雅思 serious danger 严重危险

2. **fractious** /'frækʃəs/ adj. GRE GMAT 专八 托福 making trouble and complaining 不安分的；惹是生非的

例：It will be tough for anyone to round up the votes needed to take over the fractious House.

参与本次竞选的任何候选人要想获得足够的选票并接管这个难以驾驭的众议院都不会容易。

3. **newish** /'njuːʃ/ adj. fairly new 较新的

例：Open governance is still a newish idea even in advanced economies.

即使在发达经济体中，开放式管理也依然是一个新颖的理念。

【词组】

1. **nuts and bolts** : the basic practical details of a subject or an activity 基本要点；具体细节

例：The documentary focuses on the real nuts and bolts of the film-making process.

这个纪录片关注的是电影拍摄过程中的具体细节。

【长难句】

But bodies that already work on AI-related questions, such as the OECD and Britain’ s newish Frontier AI Taskforce, which aims to gain access to models’ nuts and bolts, could work closely together.

句子主干部分为 But bodies that already work on AI-related questions could work closely together, 意为：但那些已经在研究人工智能相关问题的机构可以密切合作

其中，that already work on AI-related questions 为**定语从句**，修饰限定 bodies，意为：那些已经在研究人工智能相关问题的（机构）

such as the OECD and Britain’ s newish Frontier AI Taskforce 为**状语**，举例说明 bodies，意为：如经合组织和英国新成立的前沿人工智能工作组

which aims to gain access to models’ nuts and bolts 为**非限制性定语从句**，补充说明 Britain’ s newish Frontier AI Taskforce，意为：（该工作组）旨在获取模型的具体细节

As AI develops further, regulators will have a far better idea of what risks they are guarding against, and consequently what the rule book should look like. A fully **fledged regime** could eventually look rather like those for other technologies of world-changing import, such as nuclear power or bioengineering. But creating it will take time—and **deliberation**.

随着人工智能的进一步发展，监管机构将更清楚地知道他们要防范的风险是什么，从而知道规则应该是什么样的。一个成熟的制度最终可能与其他改变世界的重要技术（如核能或生物工程）的制度类似。但是，它的建立需要时间和深思熟虑。

【词汇】

1. **fledged** /fledʒd/ adj. GRE completely developed; with all the qualifications necessary for something 成熟的；完全合格的

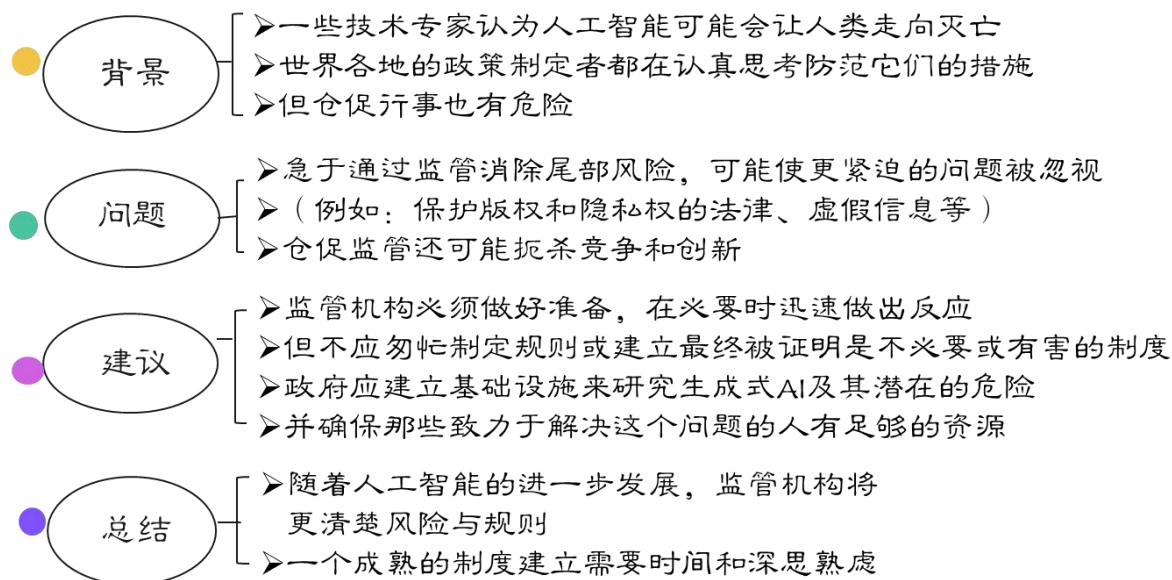
例：She was now a fully fledged member of the teaching profession.

她现在是完全合格的教师。

2. **regime** /reɪˈʒi:m/ n. 六级 GRE GMAT 考研 雅思 a method or system of government, especially one that has not been elected in a fair way (尤指未通过公正选举的) 统治方式, 统治制度, 政权, 政体
3. **deliberation** /dɪˌlɪbəˈreɪʃn/ n. 专八 the process of carefully considering or discussing something 细想; 考虑; 商议; 审议

总结

1) 文章架构



2) 同义替换

✓ 监管

police

Governments must not rush into policing AI

政府不应急于监管人工智能

regulate

A rush to regulate away tail risks

急于通过监管消除尾部风险

其他: supervise/monitor/control

例: Fund managers are poorly placed to monitor companies.

基金经理们不适合监管公司。

✓ 危险

danger

But there is danger, too, in acting hastily.

但仓促行事也有危险。

peril

to set up the infrastructure to study the technology and its potential perils

建立基础设施来研究这项技术及其潜在的危险

其他：risk/jeopardy/hazard/pitfall

例：But now use of the canal is in jeopardy because of lower water levels.

但现在，由于水位下降，运河通航处于危险之中。

3) 一词多义

✓ speculative

✓ 文章原句：The idea that AI could drive humanity to extinction is still entirely speculative. 人工智能可能会让人类走向灭亡，这完全是一种推测。

✓ 释义：

① **based on guessing or on opinions that have been formed without knowing all the facts** 推测的；猜测的；推断的

The report is highly speculative and should be ignored.

这个报道推测的成分很大，应该不予理会。

② **showing that you are trying to guess something** 揣摩的；好奇的；试探的

His mother regarded him with a speculative eye.

他的母亲用好奇的目光看着他。

③ **done in the hope of making a profit but involving the risk of losing money** 投机性的；风险性的

The King's Reach hotel was built as a speculative venture but never completed.

金里奇酒店本来是作为一个投机性的风险项目建设的，但一直没有完工。

✓ **serve**

✓ 文章原句：restraining open-source models would serve only to limit an important source of competition. 限制开源模型只会限制一个重要的竞争来源

✓ 释义：

① **to have a particular effect or result** 产生…的效果（或结果）

The attack was unsuccessful and served only to alert the enemy.

进攻未奏效，反而使敌人警觉起来。

② **to give somebody food or drink, for example at a restaurant or during a meal**（给某人）

提供；端上

They served a wonderful meal to more than fifty delegates.

他们招待五十多位代表吃了一餐美味佳肴。

③ **to help a customer or sell them something in a shop** 接待；服务

The bar staff spend more time chatting to friends than serving customers.

与服务客户相比，酒吧工作人员与朋友聊天的时间更多。

④ **to be useful to somebody in achieving or satisfying something** 对…有用；能满足…的需要

Most of their economic policies serve the interests of big business.

他们的经济政策多半符合大企业的利益。

⑤ **to work or perform duties for a person, an organization, a country, etc.; to spend a period of time in a particular job**（为…）工作，服务，履行义务，尽职责

She has already served two terms as mayor.

她已经担任过两届市长。

4) 仿写训练

✓ 描述正是时候

✓ 文章原句：

It is time to think hard about these doomsday scenarios. Not because they have become more probable—no one knows how likely they are—but because policymakers around the world are mulling measures to guard against them.

✓ 句型：

It is time to ... 现在是...的时候了

Not because ..., but because ... 不是因为..., 而是因为...

✓ 仿写示例：

It is time to prioritize mental health and well-being. Not because it's a trendy topic, but because the toll of stress, anxiety, and depression on individuals and societies is too great to ignore. Recognizing and addressing mental health challenges is not a passing trend; it's a necessity for a healthier, more compassionate world.

✓ 仿写作业——描述正是拥抱教育中的技术的时候

现在是在教育中拥抱技术的时候了。

不是因为传统方法已经过时，而是因为技术具有提升和丰富学习体验的潜力。数字工具、在线资源和互动平台的整合可以使教育更有吸引力、更易获取、更能适应不同的学习方式。

5) 主题词总结

今日主题——监管	
1. regulator	监管机构
2. policymaker	政策制定者
3. rule	规则
4. benchmark	基准
5. tail risk	尾部风险

6. institution	制度
7. infrastructure	基础设施
8. body	机构
9. regime	制度