



编委会主任：钟义信

编委会副主任：蔡自兴 卢先和 邓志鸿

秘书长：王万森

全国高等学校智能科学与技术专业规划教材

人工智能专业英语教程

朱丹 蔡丹 王敏 程娟 编著



清华大学出版社



全国高等学校智能科学与技术专业规划教材

人工智能专业英语教程

朱 丹 蔡 丹 王 敏 程 娟 编著

Zhu Dan Cai Dan Wang Min Cheng Juan

贵州师范学院内部使用

清华大学出版社
北京

内 容 简 介

本书是人工智能、计算机、自动控制等相关专业的专业英语教材，选材广泛，内容涵盖人工智能的基本概念、发展历史、主要技术、人工智能的现在与未来，以及人工智能给人类带来的影响和人工智能的应用领域等。本书具体内容包括：第1章人工智能的基本概念。第2章人工智能的发展历史。第3章到第5章人工智能的主要技术，包括机器学习、深度学习和自然语言处理等。第6章和第7章人工智能的应用领域，包括人工智能在农业、教育、安防、金融、医疗、交通、家庭等领域的应用情况。书中每章所选用文章均来自国外网站，本书作者对文章中出现的新词和专业术语进行了注释，每篇文章都配有相应的习题和拓展阅读，有利于读者巩固学习效果。

本书可作为高等院校人工智能、计算机、自动控制等专业的英文课程教材，同时也可作为各类计算机从业人员或者有志于投身人工智能领域的相关人员的自学书籍。

本书封面贴有清华大学出版社防伪标签，无标签者不得销售。

版权所有，侵权必究。侵权举报电话：010-62782989 13701121933

图书在版编目(CIP)数据

人工智能专业英语教程 / 朱丹等编著. —北京：清华大学出版社，2020.1

全国高等学校智能科学与技术专业规划教材

ISBN 978-7-302-52842-5

I. ①人… II. ①朱… III. ①人工智能—英语—高等学校—教材 IV. ①TP18

中国版本图书馆CIP数据核字(2019)第082409号

责任编辑：梁颖 李晔

封面设计：常雪影

责任校对：梁毅

责任印制：沈露

出版发行：清华大学出版社

网 址：<http://www.tup.com.cn>, <http://www.wqbook.com>

地 址：北京清华大学学研大厦A座

邮 编：100084

社总机：010-62770175

邮 购：010-62786544

投稿与读者服务：010-62776969, c-service@tup.tsinghua.edu.cn

质量反馈：010-62772015, zhiliang@tup.tsinghua.edu.cn

课 件 下 载：<http://www.tup.com.cn>, 010-83470236

印 装 者：北京密云胶印厂

经 销：全国新华书店

开 本：185mm×260mm

印 张：12.75

字 数：308千字

版 次：2020年1月第1版

印 次：2020年1月第1次印刷

定 价：39.00元

产品编号：083024-01

人工智能产业是智能产业发展的核心，是其他智能科技产品发展的基础，国内外的高科技公司以及风险投资机构纷纷布局人工智能产业链。前瞻产业研究院《人工智能行业市场前瞻与投资战略规划分析报告》指出，2017年中国人工智能核心产业规模超过700亿元，随着国家相关规划的出台，各地人工智能相关建设将逐步启动，预计到2020年，中国人工智能核心产值规模将超过1600亿元。在全球人工智能人才竞争的大背景下，我国对人工智能高等教育愈发重视。截至2017年12月，全国共有71所高校围绕人工智能领域设置了86个二级学科或交叉学科。人工智能从业人员必须提高专业英语水平，以便及时获取最新、最先进的专业知识，因此，该专业的高校都有开设人工智能专业英语课程的需求。

本书选材广泛，内容涵盖人工智能的基本概念、发展历史、主要技术、人工智能的现在与未来，以及人工智能给人类带来的影响和人工智能的应用领域等。本书共分13章，第1章介绍人工智能的基本概念。第2章介绍人工智能的发展历史。第3章至第5章介绍人工智能的主要技术，包括机器学习、深度学习和自然语言处理等。第6章至第12章介绍人工智能的应用领域，包括人工智能在农业、教育、安防、金融、医疗、交通、家庭等领域的应用情况。第13章介绍人工智能的影响。书中每个单元包括：Text A及Text B两篇文章，这些文章均选自国外知名网站，具有一定的知识性和实用性；New Words and Expressions给出课文中出现的新词，读者由此可以扩充词汇量；Terms对文中出现的专业术语进行解释；Comprehension针对课文练习，有利于读者巩固学习效果；Answers给出参考答案，读者可对照检查学习效果；参考译文帮助读者理解文章大意；常用人工智能词汇中英文对照表供读者记忆单词和查询之用。

本书第1至10章由朱丹编写，第11章及词汇对照表由蔡丹编写，第12章由王敏编写，第13章由程娟编写。全书由朱丹统稿。

本书文章节选自互联网，在此向文章原作者表示感谢，由于作者水平有限，书中难免出现不足之处，敬请读者不吝指正。

编者

2019年4月

CONTENTS

目 录

Chapter 1 What is Artificial Intelligence?	1
Text A	1
Terms	3
Comprehension	4
Answers	4
参考译文 A	5
Text B	6
参考译文 B	9
Chapter 2 History of Artificial Intelligence	11
Text A	11
Terms	15
Comprehension	15
Answers	16
参考译文 A	16
Text B	18
参考译文 B	21
Chapter 3 Machine Learning	23
Text A	23
Terms	28
Comprehension	28
Answers	29
参考译文 A	30
Text B	32
参考译文 B	35
Chapter 4 Deep Learning	37
Text A	37
Terms	41

Comprehension.....	41
Answers.....	42
参考译文 A.....	42
Text B.....	44
参考译文 B.....	48
Chapter 5 Natural Language Processing	50
Text A.....	50
Terms.....	54
Comprehension.....	55
Answers.....	55
参考译文 A.....	56
Text B.....	57
参考译文 B.....	60
Chapter 6 Artificial Intelligence in Agriculture	62
Text A.....	62
Terms.....	69
Comprehension.....	70
Answers.....	71
参考译文 A.....	71
Text B.....	75
参考译文 B.....	78
Chapter 7 Artificial Intelligence in Education.....	81
Text A.....	81
Terms.....	83
Comprehension.....	84
Answers.....	84
参考译文 A.....	85
Text B.....	86
参考译文 B.....	90
Chapter 8 Artificial Intelligence in Security.....	93
Text A.....	93
Terms.....	96
Comprehension.....	96
Answers.....	97
参考译文 A.....	97

Text B	99
参考译文 B	101
Chapter 9 Artificial Intelligence in Finance.....	103
Text A	103
Terms	113
Comprehension.....	113
Answers	114
参考译文 A	114
Text B	119
参考译文 B	120
Chapter 10 Artificial Intelligence in Healthcare	121
Text A	121
Terms	127
Comprehension.....	127
Answers	128
参考译文 A	128
Text B	131
参考译文 B	136
Chapter 11 Artificial Intelligence in Transportation	138
Text A	138
Terms	143
Comprehension.....	145
Answers	145
参考译文 A	146
Text B	148
参考译文 B	151
Chapter 12 Artificial Intelligence and Home Automation.....	153
Text A	153
Terms	160
Comprehension.....	161
Answers	161
参考译文 A	162
Text B	165
参考译文 B	166

Chapter 13 AI's Impact	168
Text A	168
Terms	170
Comprehension	171
Answers	172
参考译文 A	172
Text B	174
参考译文 B	177
附录 常用人工智能词汇中英对照表	179

Chapter 1

What is Artificial Intelligence?

Text A

Artificial intelligence (AI), sometimes called machine intelligence, is intelligence *demonstrated* by machines, in contrast to the natural intelligence displayed by humans and other animals. In computer science AI research is defined as the study of “*intelligent agents*”: any device that *perceives* its environment and takes actions that *maximize* its chance of successfully achieving its goals. Colloquially, the term “artificial intelligence” is applied when a machine *mimics* “*cognitive*” functions that humans *associate* with other human minds, such as “learning” and “problem solving”.

For years, it was thought that computers would never be more powerful than the human brain, but as development has *accelerated* in modern times, this has proven to be not the case.

AI as a concept refers to computing hardware being able to *essentially* think for itself, and make decisions based on the data it is being fed. AI systems are often hugely complex and powerful, with the ability to process *unfathomable* depths of information in an extremely quick time in order to come to an effective conclusion.

Thanks to detailed *algorithms*, AI systems are now able to perform *mammoth* computing tasks much faster and more efficiently than human minds, helping making big *strides* in research and development areas around the world.

Some of the most notable real-world applications of AI are IBM's Watson¹, which is being used to power research in a huge

New Words and Expressions

artificial /ɑːtɪˈfɪʃ(ə)l/ adj.

人造的; 仿造的

demonstrate /ˈdɛmənstreɪt/ vt.

证明; 展示; 论证

agent /ˈeɪdʒənt/ n.

代理; 主体

perceive /pəˈsiːv/ vt.

察觉, 感觉; 理解; 认知

maximize /ˈmæksɪmaɪz/ vt.

取...最大值; 对...极为重视

mimic /ˈmɪmɪk/ vt.

模仿; 摹拟

cognitive /ˈkɒɡnɪtv/ adj.

认知的, 认识的

associate /əˈsəʊʃieɪt/ vt.

使联合; 使发生联系

accelerate /əkˈseləreɪt/vi.

加速; 促进; 增加

essentially /ɪˈsenʃ(ə)li/ adv.

本质上; 本来

unfathomable /ʌnˈfæð(ə)məb(ə)l/ adj.

深不可测的; 无底的; 高深莫测的

algorithm /ˈælgərɪð(ə)m/ n.

【计】【数】 算法, 运算法则

mammoth /ˈmæməθ/ adj.

巨大的, 庞大的

stride /straɪd/ n.

进展

range of fields, with Microsoft's **Azure**² Machine Learning and **TensorFlow**³ also making headlines around the world.

But AI-powered smart assistants are becoming a common presence on mobile devices too, with the likes of Siri, Cortana and Alexa all being welcomed into many people's lives.

There seems no limit to the applications of AI technologies, and perhaps the most exciting aspect of the ecosystem is that there's no telling where it can go next, and what problems it may *ultimately* be able to solve.

Why is artificial intelligence important?

AI *automates* repetitive learning and discovery through data. But AI is different from hardware-driven, robotic automation. Instead of automating manual tasks, AI performs frequent, *high-volume*, computerized tasks *reliably* and without fatigue. For this type of automation, human inquiry is still essential to set up the system and ask the right questions.

AI adds intelligence to existing products. In most cases, AI will not be sold as an individual application. Rather, products you already use will be improved with AI capabilities, much like Siri was added as a feature to a new generation of Apple products. Automation, conversational platforms, *bots* and smart machines can be combined with large amounts of data to improve many technologies at home and in the workplace, from security intelligence to investment analysis.

AI adapts through progressive learning algorithms to let the data do the programming. AI finds structure and *regularities* in data so that the algorithm acquires a skill: The algorithm becomes a classifier or a predictor. So, just as the algorithm can teach itself how to play chess, it can teach itself what product to recommend next online. And the models adapt when given new data. **Back propagation**⁴ is an AI technique that allows the model to adjust, through training and added data, when the first answer is not quite right.

AI analyzes more and deeper data using *neural* networks that have many hidden layers. Building a **fraud detection**⁵ system with five hidden layers was almost impossible a few years ago. All that has changed with incredible computer power and big data. You need lots of data to train deep learning models because they learn directly from the data. The more data you can feed them, the more accurate they become.

New Words and Expressions

ultimately /'ʌltɪmətli/ adv.

最后; 根本; 基本上

automate /'ɔ:təmeɪt/ vt.

使自动化, 使自动操作

high-volume adj.

大容量

reliably /ri'laɪəbli/ adv.

可靠地; 确实地

bots /bɒts/ n.

机器人

regularity /regjʊ'lærəti/ n.

规则性; 整齐; 正规

propagation /prəpə'geɪʃən/ n.

传播; 繁殖; 增殖

neural /'njʊərə(ə)l/ adj.

神经的; 神经系统的

AI achieves incredible accuracy through deep neural networks—which was previously impossible. For example, your interactions with Alexa, Google Search and Google Photos are all based on deep learning—and they keep getting more accurate the more we use them. In the medical field, AI techniques from deep learning, image classification and object recognition can now be used to find cancer on *MRIs* with the same accuracy as highly trained *radiologists*.

AI gets the most out of data. When algorithms are self-learning, the data itself can become intellectual property. The answers are in the data; you just have to apply AI to get them out. Since the role of the data is now more important than ever before, it can create a competitive advantage. If you have the best data in a competitive industry, even if everyone is applying similar techniques, the best data will win.

Note:

The text is adapted from the website:

<https://www.techradar.com/news/what-is-ai-everything-you-need-to-know>

New Words and Expressions

MRI abbr.

(Magnetic Resonance Imaging)

核磁共振成像

radiologist /redɪˈɒlədʒɪst/ n.

放射线研究者

Terms

1. IBM Watson 是认知计算系统的杰出代表，也是一个技术平台。认知计算代表一种全新的计算模式，它包含信息分析，自然语言处理和机器学习领域的大量技术创新，能够助力决策者从大量非结构化数据中引发非凡的洞察。
2. Azure 机器学习服务是一项云服务，可以使用它来训练、部署、自动执行以及管理机器学习模型，所有这些都是云提供的广泛范围内进行的。
3. TensorFlow™ 是一个基于数据流编程 (dataflow programming) 的符号数学系统，被广泛应用于各类机器学习 (machine learning) 算法的编程实现，其前身是谷歌的神经网络算法库 DistBelief。Tensorflow 拥有多层级结构，可部署于各类服务器、PC 终端和网页并支持 GPU 和 TPU 高性能数值计算，被广泛应用于谷歌内部的产品开发和各领域的科学研究。
4. Back propagation 反向传播算法是目前用来训练人工神经网络 (Artificial Neural Network, ANN) 的最常用且最有效的算法。其主要思想是：
 - (1) 将训练集数据输入到 ANN 的输入层，经过隐藏层，最后达到输出层并输出结果，这是 ANN 的前向传播过程；
 - (2) 由于 ANN 的输出结果与实际结果有误差，则计算估计值与实际值之间的误差，将被从输出层向隐藏层反向传播，直至传播到输入层；
 - (3) 在反向传播的过程中，根据误差调整各种参数的值；不断迭代上述过程，直至收敛。
5. Fraud Detection 反欺诈中所用到的机器学习模型。
反欺诈应用的机器模型算法，多为二分类算法：

(1) GBDT 梯度提升决策树 (Gradient Boosting Decision Tree, GBDT) 算法, 该算法的性能高, 且在各类数据挖掘中应用广泛, 表现优秀, 应用场景较多。

(2) logistic 回归又称 logistic 回归分析, 是一种广义的线性回归分析模型, 常用于数据挖掘、疾病自动诊断、经济预测等领域, 在有标注样本下训练模型对不同的欺诈情况进行二元判别。

(3) 非监督的异常检测的方法, 主要是从数据中找出异常的点, 这些异常往往与欺诈有关联。

Comprehension

Blank filling

1. Artificial intelligence (AI), sometimes called _____, is intelligence demonstrated by machines, in contrast to the _____ intelligence displayed by humans and other animals.
2. AI research is defined as the study of “intelligent agents”: any device that perceives its _____ and takes actions that _____ its chance of successfully achieving its goals.
3. The term “artificial intelligence” is applied when a machine mimics “_____” functions that humans associate with other _____, such as “learning” and “problem solving”.
4. AI as a concept refers to computing _____ being able to essentially think for itself, and make decisions based on the _____ it is being fed.
5. Thanks to detailed _____, AI systems are now able to perform mammoth _____ tasks much faster and more efficiently than human minds.
6. AI-powered smart assistants are becoming a common presence on _____.
7. AI automates repetitive learning and discovery through _____.
8. AI adapts through _____ to let the data do the programming.
9. AI finds _____ and _____ in data so that the algorithm acquires a skill.

Content Questions

1. What is artificial intelligence?
2. In computer science AI research is defined as the study of “intelligent agents”. What does “intelligent agents” refer to?
3. How AI is applied in the real world?
4. What is “back propagation”?

Answers

Blank filling

1. machine intelligence; natural

2. environment; maximize
3. cognitive; human minds
4. hardware; data
5. algorithms; computing
6. mobile devices
7. data
8. progressive learning algorithms
9. structure; regularities

Content Questions

1. Artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals.
2. It refers to any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.
3. Some of the most notable real-world applications of AI are IBM's Watson, which is being used to power research in a huge range of fields, with Microsoft's Azure Machine Learning and TensorFlow also making headlines around the world.
4. Back propagation is an AI technique that allows the model to adjust, through training and added data, when the first answer is not quite right.

参考译文 A

人工智能 (AI)，有时被称为机器智能。与人类和其他动物展示的天生智能不同，人工智能是由机器展示的智能。在计算机科学中，人工智能研究被定义为对“智能主体”的研究：能够感知环境，并采取行动以成功实现目标的智能机器。一般来说，“人工智能”一词是指机器模仿人类的“认知”功能和智能行为，如“学习”和“解决问题”等。

多年来，人们一直认为计算机永远不会比人脑强大，但随着现代科技的发展，事实证明并非如此。

人工智能的概念是指计算硬件能够独立思考，并根据输入的数据做出决策。人工智能系统通常非常复杂和强大，能够在极短的时间内处理深不可测的信息，以便得出有效的结论。

得益于周密的算法，人工智能系统现在能够比人脑更快、更有效地执行庞大的计算任务，从而有助于世界各地的研究和开发。

人工智能最引人注目的一些应用是：IBM 的沃森(Watson)，它正被用于许多领域的研究，微软的 Azure 机器学习(Azure Machine Learning)和 TensorFlow 也都引起了大家的关注。

但是，随着 Siri、Cortana 和 Alexa 等智能助手进入许多人的生活，人工智能智能助手也会出现在移动设备上。

人工智能技术的应用似乎没有限制，或许这个生态系统最令人兴奋的方面是，它不知道下一步将走向何方，也不知道最终可能解决什么问题。

为什么人工智能至关重要？

人工智能通过渐进式学习算法进行调整，让数据进行编程。人工智能在数据中发现结构和规律，使算法获得一种技能：算法成为分类器或预测器。因此，就像算法可以自学如何下棋一样，它也可以自学下一步应该推荐什么产品。当得到新的数据时，模型就会适应。反向传播是一种人工智能技术，当第一个答案不太正确时，它允许模型通过训练和添加数据来调整。

人工智能通过数据来实现自动化的重复学习和发现。但人工智能不同于硬件驱动的机器人自动化。人工智能不再自动完成手工任务，而是可靠地不知疲倦地执行频繁的、大批量的计算机任务。对于这种类型的自动化，人工查询对于建立系统和提出正确的问题仍然是必不可少的。

人工智能为现有产品增加了智能。在大多数情况下，AI 不会作为一个单独的应用程序出售，而是使在用产品得到改进，就像 Siri 被添加到新一代苹果产品中一样。自动化、对话平台、机器人和智能机器可以与大量数据相结合，使安全智能、投资分析等许多家庭和工作场所的技术得以改进。

人工智能使用具有许多隐藏层的神经网络分析更多和更深层次的数据。几年前，建立一个包含五个隐藏层的欺诈检测系统几乎是不可能的。这一切都因计算机的强大功能和大数据而改变。你需要大量的数据来训练深度学习模型，因为它们直接从数据中学习。你能提供给它们的数据越多，它们就越准确。

人工智能通过深层神经网络实现了难以置信的准确性——这在以前是不可能的。例如，你与 Alexa、谷歌搜索和谷歌照片的互动都是基于深度学习的——我们越使用它们，它们就越准确。在医学领域，来自深度学习、图像分类和目标识别的人工智能技术，现在可以像训练有素的放射科医生一样，在核磁共振成像上准确地发现癌症。

人工智能从数据中获取最多。当算法是自我学习时，数据本身可以成为知识产权，答案就在数据中。你只需要应用 AI 就可以把它们弄出来。由于数据的作用现在比以往任何时候都重要，它可以创造竞争优势。如果你在竞争激烈的行业中拥有最好的数据，即使每个人都在应用类似的技术，那最好的数据也会胜出。

Text B

Artificial intelligence is everywhere, from Apple's iPhone keyboard to Zillow's home price estimates. There's also a lot of stuff out there that marketers are calling AI, but really isn't.

Perhaps things reached a new high point last month when AlphaGo, a virtual player of the ancient Chinese board game Go developed by Alphabet's DeepMind AI research group, *trounced* the top human player in the world, China's Ke Jie.

A moment of drama *encapsulates* the achievement: After Jie *resigned* in the second of three matches, the 19-year-old lingered in his chair, staring down at the board for several minutes, *fidgeting*

New Words and Expressions

trounce/traʊns/vt.

痛打；严责；打败

encapsulate/ɪn'kæpsjʊleɪt/vt.

将...封进内部；概述

resign/rɪ'zam/vi.

辞职；放弃

fidget/'fɪdʒɪt/vi.

烦躁；坐立不安

with game pieces and *scratching* his head. Aja Huang, the DeepMind senior research scientist who was tasked with moving game pieces on behalf of AlphaGo, eventually got up from his chair and walked offstage, leaving Jie alone for a moment.

Still, it's generally true that a human being like Jie has more brainpower than a computer. That's because a person can perform a wide range of tasks better than machines, while a given computer program enhanced with AI like AlphaGo might be able to edge out a person at just a few things.

But the prospect of AI becoming smarter than people at most tasks is the single biggest thing that drives debates about effects on employment, creativity and even human existence.

Here's an overview of what AI really is, and what the biggest companies are doing with it.

So what is AI, really?

Given that everybody's talking about AI now, you would think it's new. But the underlying techniques are not. The field got its start in the mid-twentieth century, and one of its most popular methods came about in the 1980s.

AI first took hold in the 1950s. While some of its underlying concepts predate it, the term itself dates to 1956, when John McCarthy, a math professor at Dartmouth College, proposed a summer research project based on the idea that “every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to *simulate* it.”

In the next few years AI research labs popped up at the Massachusetts Institute of Technology (MIT) and Stanford University. Research touched on computer chess, robotics and natural-language communication.

Interest in the field fluctuated over time. AI winters came in the 1970s and 1980s as public interest waned and outside funding dried up. Startups boasting promising capabilities and venture capital backing in the mid-1980s abruptly disappeared, as John Markoff detailed in his 2015 book “Machines of Loving Grace.”

There are several other terms you often hear in connection to AI.

Machine learning generally *entails* teaching a machine how to do a particular thing, like recognizing a number, by feeding it a bunch of data and then directing it to make predictions on new data.

New Words and Expressions

scratch /skrætʃ/ vt.

抓; 刮

edge out

替代; 微微胜过

simulate /ˈsɪmjələt/ vt.

模仿

entail /enˈteɪl/ vt.

使需要, 必需; 承担

The big deal about machine learning now is that it's getting easier to invent software that can learn over time and get smarter as it accumulates more and more data. Machine learning often requires people to hand-engineer certain features for the machine to look for, which can be complex and time-consuming.

Deep learning is one type of machine learning that demands less hand-engineering of features. Often the approach involves artificial neural networks, a mathematical system loosely inspired by the way neurons work together in the human brain. Neuroscientist Warren McCulloch and mathematician Walter Pitts came up with the first such system in 1943. Through the years, researchers advanced the concept with various techniques, including adding multiple layers. With each *successive* layer, higher-level features could be detected in the original data to make a better prediction. The layers pick out features in the data themselves. But using more layers demands more computing power.

Why is it suddenly so hot?

Through the years, hardware has gotten more powerful, and chipmakers including Nvidia have refined their products to better suit AI computations. Larger data sets in many domains have become available to train models more *extensively* as well.

In 2012, Google made headlines when it trained a neural network with 16,000 central processing unit (CPU) chips on 10 million images from YouTube videos and taught it to recognize cats. But later that year, the world of image recognition was rocked when an eight-layer neural network trained on two graphics processing units (GPUs) outdid all others in a competition to accurately classify images based on their content. Months later, Google acquired DNNresearch, the University of Toronto team behind the breakthrough.

Since then, AI activity has only accelerated, with the world's top technology companies leading the way.

Meanwhile, the world's most valuable companies — technology companies! — continue to publish research on their latest gains, which only adds to the *fascination*.

Google and its parent company Alphabet have made several AI. Beyond that, perhaps in a few decades, an AI system with superhuman capabilities in most domains — sometimes referred to as artificial general intelligence — could emerge. Depending on whom you ask, that could be either very good or very bad. In an extreme

New Words and Expressions

successive /sək'sesiv/ adj.

连续的; 继承的; 依次的

extensively /ik'stensivli/ adv.

广阔地; 广大地

fascination /fæsɪ'neɪʃ(ə)n/ n.

魅力; 魔力; 入迷

case, an AGI system could end up making humans *extinct*. But if things go well, perhaps AGI will be something that will *supercharge* humans and help them live longer. The prospect of either of these two *scenarios* is perhaps what draws so much attention to AI development today, and what has inspired so much science fiction in the past.

But for now, what people generally see is narrow AI — intelligence applied to a small number of domains — and it doesn't always work the way it should. Look at Alexa, Cortana, the Google Assistant or Siri — they misunderstand spoken words all the time.

The thing is, the biggest companies in the world are now investing in AI like never before. And that trend is not about to let up.

New Words and Expressions

extinct/ɪk'stɪŋkt/ adj. 灭绝的, 绝种的; 熄灭的

supercharge/'su:pətʃɑ:dʒ/ vt. 对...增压; 使...超负荷

scenarios/sɪ'neəriəʊz/ n. 情节; 脚本

Note:

The text is adapted from the website:

<https://www.cnn.com/2017/06/17/what-is-artificial-intelligence.html>

参考译文 B

从苹果的 iPhone 键盘到 Zillow 的房价估算, 人工智能无处不在。市场上也有很多营销人员称之为人工智能的东西, 但实际上并非如此。

上个月, 由 Alphabet 旗下 DeepMind AI 研究集团开发的围棋虚拟玩家 AlphaGo 击败了来自中国的世界顶级棋手柯洁 (Ke Jie), 让 AI 达到了一个新的高潮。

在这背后有一个戏剧性的时刻: 在三场比赛的第二场比赛中, 19 岁的柯洁几乎崩溃。他坐在椅子上, 低头盯着棋盘看了几分钟, 一边摆弄棋子, 一边挠头。负责替 AlphaGo 移动棋子的 DeepMind 高级研究科学家 Aja Huang 最终从椅子上站起来, 走下舞台, 让柯洁独自待了一会儿。

尽管如此, 像柯洁这样的人确实比计算机更聪明。因为一个人可以比机器更好地执行各种各样的任务, 而具有人工智能的计算机程序, 例如 AlphaGo, 只能在某些事情上胜过人。

但是, 在一些任务中人工智能表现得比人类聪明, 因此引发了关于就业、创造力乃至人类生存影响的争论。

以下是关于人工智能的概述, 以及大公司正在用它做什么。

那么 AI 到底是什么呢?

因为现在每个人都在谈论人工智能, 你可能会认为它是新的。但它的基本技术并不新。这个领域在 20 世纪中期开始发展, 最流行的方法之一出现在 20 世纪 80 年代。

人工智能首次出现是在 20 世纪 50 年代。虽然它的一些基础概念在此之前就已经出现, 但这个术语本身始于 1956 年, 由 Dartmouth 大学的数学教授约翰·麦卡锡提出, 他认为“机器可以模拟学习和智力的其他方面”。