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Smart everything everywhere

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E2	Wang Hao and Yi Fei find an article about how to give good academic presentations. Next, they find a video showing how a speaker can prepare for audience questions.	• Text: Textbook article • Video: Demonstration	• Intercultural skill: Giving presentations to a multicultural audience • Critical thinking skill: Anticipating questions	Writing a list of anticipated audience questions and preparing answers
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- For Activity 1, ask Ss to discuss how an AI system might work in each of the listed tasks. For example, for "driving a car", an AI system works by constantly collecting information through sensors and video cameras. This information allows the AI system to monitor the position of other vehicles, read road signs, etc.
- For Activity 2, have Ss give reasons for their opinions. Their partners should state whether they agree or disagree with these opinions and explain why.

❶ *Answers may vary.*

❷ I think AI is well-suited to driving cars. AI can respond to road conditions faster than human drivers can. This can result in fewer accidents. Similarly, I think AI could be great at performing surgery. The movements performed by the "robot hands" can be more precise than by a human surgeon, and less prone to making mistakes. I don't think that AI would be well-suited for composing music. To me, this task requires human creativity and inspiration. I feel the same way about cooking meals. There's creativity and artistry in great cooking, and I don't think AI can achieve that.

Episode 1

Text

Background information

Adaptive learning

Adaptive learning is an educational service that uses computers and technology to facilitate comprehension and retention based on the unique needs of individual learners. The basic principles of adaptive learning in education can be traced back to the mid-20th century. The American behavioral psychologist B. F. Skinner designed a simple teaching machine that adjusted its lessons based on students' responses to questions.

Today, adaptive learning is much more complex. It can analyze students' responses to questions, as well as their response speed, and even the order in which they answer questions. This data is used to identify strengths and weaknesses in students' skill sets, and then tailor lessons and offer resources to meet individual needs.

Adaptive learning can be particularly helpful for students with learning disabilities or those who require additional help in their studies. However, it is also useful for stronger students, as it accelerates lessons for them. Importantly, adaptive learning may also have a big effect on students from lower-income areas, who wouldn't otherwise have access to customized lessons. In the future, it may level the playing field for education around the world.

There are, however, some challenges and disadvantages to adaptive learning. Adaptive learning requires a training period for teachers, which can be both time-consuming and costly. A further disadvantage is that adaptive learning reduces the opportunities for students to engage in group learning, which carries many social benefits.

Language points

1. **A recent safety report identified unintentional injuries as the leading cause of death for Americans under 44 years old, among which deaths due to distracted driving constitute a very high proportion.**

   Meaning   According to a recent safety report, accidental injuries are the main cause of death for Americans under 44 years old. Many of these deaths happen because drivers are distracted.

   identify ... as ...: to recognize sb. or sth. as being the specified person or thing 鉴别出…是…
   The student identified his study habits as the main reason for his academic success.

   distracted: *a.* anxious and unable to think clearly 心神不定的；心烦意乱的；精神无法集中的
   Tom was so distracted that he bumped into a tree.

   constitute: *v.* (*linking verb*) if several people or things constitute sth., they are the parts that form it 组成；构成
   It is reported that people above 65 constituted about 20 percent of the whole population in this country.

2. **Also, there remain questions about who takes legal responsibility in the case of an accident with autonomous vehicles.**

   Meaning   Questions about who is responsible for accidents involving self-driving vehicles have not yet been answered.

   Notes: Similar sentence structures to "there remain questions" are "there are questions" and "there exist questions". When the pronoun "there" precedes a verb such as "be", the form of the

verb depends on whether the noun that follows it is singular or plural. If the noun (in this case "questions") is plural, the verb is plural. If the noun is singular, the verb is singular. For example:
There remains one key question about this issue.

3. **Some people ask if this is just a honeymoon phase for AI in security, and wonder how long before criminals are able to defeat these "robot cops".**

   Meaning   Some people wonder if this is simply a short, pleasant period for AI security. They wonder when criminals will find ways to beat this security.

   Notes: In the context of a question, the phrase "how long before" means "when". In a statement, however, the phrase "long before" usually means "much earlier". For example:
   I had been interested in this technology long before I understood all of its amazing implications.

   Note that the phrase "before long" has a different meaning. It means "soon". For example:
   This technology will be out of date before long.

4. **For many, this could at best seriously threaten their privacy, and at worst represent a mass collection of personal information that makes citizens vulnerable to crimes such as identity theft, blackmail or even kidnapping.**

   Meaning   Many people have serious concerns about AI. In the best case, they believe this technology will take away their privacy. In the worst case, they worry it could result in serious crimes, like identity theft, blackmail, and kidnapping.

   at best: used for saying what is the best opinion you can have of sb. or sth., or the best thing that can happen, when the situation is bad（表达最好的看法，或恶劣状况下可能出现的最好转机）充其量
   His performance on the exam was average at best.

   at (the) worst: used for saying what is the worst thing that can happen（指可能出现的最坏情况）往最坏处说

At worst, AI could outsmart us all and take over the world.

   mass: *a.* (*only before noun*) involving or affecting a large number of people 涉及许多人的；影响到许多人的；大规模的
   Despite concerns about privacy and safety, AI still has mass appeal.

5. **Adaptive learning uses computer algorithms to alter course material to meet individual student needs.**

   Meaning   Adaptive learning uses technology to change course material for each student. The course material is changed to match the particular needs of each student.

   alter: *v.* to change, or to make sb. or sth. change（使）变化，改变
   Kelly altered her schedule so that she could join the computer programming club.

Activities

❶ 1) journey time
   2) emissions
   3) Cost
   4) legal responsibility
   5) crime
   6) robot cops
   7) privacy
   8) individual student needs
   9) collaborate
   10) social and interpersonal

❷ 2, 3, 5

❸ **Teaching tips**

   When Ss share their answers with their group members, have them discuss whether they think the advantages of AI outweigh the disadvantages in each field.

AI in medicine
Advantages
• AI could be used to analyze X-rays, CT scans, and other images for problems that a human radiologist might miss. • Patients could use AI to monitor their own health.
Disadvantages
• Collecting patients' personal health information could result in serious privacy concerns. • The lack of personal touch with doctors may result in patients having emotional problems.

AI in art
Advantages
• AI could be used by ordinary people to create beautiful artwork for their homes. • AI could be used by musicians to create new sounds or combine sounds in new ways.
Disadvantages
• If AI-created art becomes popular, many artists could lose their jobs. • AI can't be creative since they can only do what they are being taught.

AI in finance
Advantages
• AI could analyze large volumes of data and generate financial reports very quickly. • AI could be used to calculate the risk of specific financial transactions.
Disadvantages
• AI could be used for serious cybercrimes. • The cost of implementing AI in financial institutions is high.

AI in agriculture
Advantages
• Farmers could use AI to monitor their crops remotely. • AI analysis could be used to help farmers determine the best crops to plant on their land.
Disadvantages
• AI machines could threaten the jobs of farm workers. • AI is expensive, so only large and wealthy farms will be able to afford it initially. This could give them an unfair advantage over small farms.

Audio

Scripts

WH=Wang Hao; DM=Dr. Martin

WH: Thank you so much, Dr. Martin, for agreeing to meet with us today and talk about artificial intelligence.

DM: Oh, no problem at all. I'm happy to be here.

WH: Before we get into your thoughts about AI in education today as well as what you think the future may hold, can you tell us about how you became interested in artificial intelligence and what kinds of things you were working on at the beginning?

DM: Well, my earliest experience was with students who were hearing-impaired. My partners and I designed a chatbot to help them practice sign language.

WH: How exactly did that work?

DM: At first, the chatbot was just able to read the students' sign language and display the corresponding images. But later, we developed code so that the chatbot could actually produce sign language, so the students could have two-way conversations with it.

WH: That's fantastic. So, on to the present … how would you say AI has impacted education so far?

DM: At the moment, AI technology is being used in several areas, for example, in providing on-the-fly translation of teaching materials. This has the effect of building up a kind of global classroom. Language will not be a barrier for anyone to learn from any teacher from anywhere in the world!

WH: Oh, that sounds amazing.

DM: Yes. There are also lots of other applications which are a bit more mundane, but really help out, like automating simple administration tasks that used to take up a lot of teachers' time, and freeing them up to focus on actual teaching!

WH: I see. So, what are your predictions for the more distant future with regard to the role of AI in education?

DM: Well, actually there are many, many things that are being developed at the moment. One of those I am most excited about is in facial recognition.

WH: Oh? Can you explain that?

DM: If we have a technology that can read signs of emotions, such as engagement or confusion, then this would allow teachers to adjust their content or teaching style to suit students on the fly.

WH: That's very fascinating!

Language points

1. Oh, no problem at all.

Notes: The expression "no problem at all" is a polite way of responding to "thank you". Similar expressions include "no trouble", "happy to help", and "my pleasure".

2. Well, my earliest experience was with students who were hearing-**impaired**.

Meaning   My first experience with AI was working with students who could not hear well or at all.

impaired: *a.* damaged, less strong, or not as good as it should be 受损的；变差的
Today, there are many technologies that can help visually-impaired students.

Notes: We use "-impaired" in adjectives to describe someone "having the type of physical or mental problem mentioned". For example, someone who is "hearing-impaired" has a disability affecting their hearing, and someone who is "visually-impaired" has a disability affecting their sight. "The hearing-impaired" or "the visually-impaired" are people with disabilities affecting their hearing or sight, respectively.

3. There are also lots of other applications which are a bit more **mundane**, but really help out, like **automating** simple administration tasks that used to **take up** a lot of teachers' time, and **freeing** them **up** to focus on actual teaching!

Meaning   There are many other helpful but ordinary uses of AI. For example, it could be used for time-consuming administrative tasks. This means teachers would have more time for teaching.

mundane: *a.* ordinary and not interesting or exciting 平凡的；平淡的；乏味的
Many technologies that were once exciting, such as the radio, seem mundane today.

automate: *vt.* to start using computers and machines to do a job, rather than people 使自动化
Some people wonder what will happen to factory workers if their jobs are automated.

take up: to fill a particular amount of space or time 占去（空间或时间）
This new robot is huge; it takes up half my room!

free up: to make sb. or sth. available to be used for sth. else 腾出；省下；使可用于
John got rid of his old desktop computer to free up space for other things.

4. So, what are your predictions for the more distant future **with regard to** the role of AI in education?

Meaning   What effect do you think AI will have on education many years from now?

with regard to: concerning a particular subject 关于；有关
I am curious about the effects of AI with regard to medicine.

Activities

4 2, 4, 5

5 1. hearing
   2. sign language
   3. global classroom

4. actual teaching

5. teaching style

After Ss have completed their interviews, ask a few pairs of volunteers to role-play their interviews for the class. Then ask the class to try to identify the different question types, as detailed in the skill box (e.g. introducing questions, probing questions).

Sample interview

A: *Could you tell me a bit about your AI platform?*

B: *Sure. This platform is designed to help book-lovers find new authors and new books.*

A: *How exactly does the platform work?*

B: *Well, users rate and review books they have read on the platform. The AI program uses these reviews to learn about each user's tastes. Then it makes customized recommendations to users.*

A: *What inspired this idea?*

B: *I love to read! I'm always looking for new books, but I found it difficult to find good recommendations. That's when I came up with this idea!*

A: *Interesting. If it's OK with you, I'd like to ask about your background in technology.*

B: *By all means.*

A: *Do you have any training in AI?*

B: *Yes. I studied computer programming at university and specialized in AI. Actually, that's where I developed this platform.*

A: *Oh! So you came up with it as a student?*

B: *Exactly.*

Additional notes

Academic skill: *Asking questions in an interview*

Here are some other tips to help with asking questions in an interview.

Consider our tone

When we ask questions in an interview, it is important to choose an appropriate tone.

Although our tone may vary depending on the context of the interview, in general it's a good idea to maintain a warm and friendly tone throughout. This will help put the interviewee at ease and encourage more detailed answers.

Do our research

Before conducting an interview, we should learn as much as we can about the person we are interviewing and the topic at hand. This will better prepare us to ask appropriate and insightful questions. It will also help us come up with follow-up questions during the interview.

Over to you

Teaching tips

- For Step 1, have a class brainstorming session about topics related to AI. Then, ask Ss to brainstorm further ideas in their groups. Encourage them to keep thinking of or researching ideas until they find a topic that really interests them.

- For Step 2, ask Ss to first identify a general topic area to research (e.g. AI in art, AI in medicine). Then ask them to consider different sub-topics in this area (e.g. If the general topic is AI in art, sub-topics could include AI in music, AI in dance, and AI in visual art.).

- For Step 3, have a brief class discussion about different research methods, as well as the advantages and disadvantages of these methods. For example, an advantage of conducting interviews might be that it offers a first-hand perspective of an issue. A disadvantage might be that it does not typically provide key figures and statistics. After the research methods are decided, give Ss time to search for information.

- For Step 4, first ask Ss to break down their outlines into three sections: an introduction, a body section, and a conclusion. For the body section, Ss should decide on the best content pattern for their topic, such as pros and cons, cause and effect, comparison and contrast, etc. Finally, have them use bullet-point notes to add information to each section.

Answers may vary.

Use the following criteria to judge how successful Ss have been with their OTY task. T can also share the criteria with Ss before they begin.

Content	• **Relevance:** Your outline includes information directly related to the area of AI that you want to discuss, and does not include irrelevant information.
Organization	• **Structure:** Your outline includes an introduction, main points, and a conclusion. • **Clarity:** The main points in your presentation outline are organized in a clear way (e.g. by following a pattern suited to your content, such as pros and cons, cause and effect, comparison and contrast).
Language	• **Appropriacy:** You have used bullet points to express your main ideas. • **Acquisition:** You have used as many as possible of the new words and expressions learned in this episode.

Language in focus

Words and expressions

❶ 1. emissions
2. at best
3. alter
4. privacy
5. constitute

❷ 1. impair
2. corresponding
3. automates
4. free up

Collocations

❸ 1. meets the expectations
2. taking credit
3. meet the needs
4. took responsibility / took the blame
5. met the standards

Structure

Additional notes

Structure: *it could be that …*

In this structure, other modal verbs can replace "could" to achieve a similar meaning. For example, "it might be that …" and "it may be that …" both indicate possibility in the present or in the future. A different meaning can be achieved using other modal verbs in the same structure. For example, "it must be that …" reflects a sense of certainty about something.

❹ 1. It could be that robots will replace teachers one day.
2. It could be that a return to more old-fashioned ways of life will lead to a more peaceful world.
3. It could be that all humans will speak the same language in the future.
4. It could be that AI will be able to help us solve the environmental crisis.

Episode 2

Text

Language points

1. Giving a presentation can be a challenging and nerve-racking experience for anyone.

nerve-racking: *a.* making you very nervous or worried 使人精神紧张的；令人心烦的
I find the idea of riding in a self-driving car quite nerve-racking.

> **Notes:** The compound adjective "nerve-racking" is formed by combining the noun "nerve" and the present participle "racking" with a hyphen. Other words with the same construction are "record-breaking", "English-speaking", "spine-tingling", "heart-breaking", etc.

2. Additionally, a more formal style of delivery is required.

Meaning Also, presentations need to be given in a formal style.

delivery: *n.* [sing.] the way in which sb. speaks in public 演讲方式
The content of her speech is excellent, but the delivery needs attention.

3. This will help you create content that will be relatable and of interest to them, with the right level of detail.

Meaning This will help you create interesting material that your audience will enjoy. It will also help you include an appropriate amount of detail.

relatable: *a.* causing people to understand and sympathize with 让人认同的；使人产生共鸣的
I enjoyed listening to Alice's story, because I found it very relatable.

> **Notes:** The adjective "relatable" is formed by adding the suffix "-able" to the base verb "relate". The suffix "-able" is used to form adjectives meaning "possible, capable of, suitable for or causing, etc.".

> **Notes:** Pay attention to the expression "be of interest to them". If something is of interest to somebody, it means that person finds it interesting. For example:
> *That book was of interest to me because it contained lots of information about a type of art that really fascinates me.*

4. It is important to provide a variety of content to capture the audience's attention, otherwise they may quickly become bored.

Meaning Presenters should include different types of content to keep their audience interested. Otherwise they may soon get bored with the presentation.

capture: *vt.* to catch sb. so that they become your prisoner 俘虏；捕获
The police captured the criminal with the help of DNA sampling.

> **Notes:** The expression "capture one's attention" means "to make sb. feel very interested". For example:
> *Kevin captured everyone's attention with his exciting personal anecdote.*

5. A presenter should be conscious of their delivery, making sure it is stimulating and enthusiastic so as to keep the audience's attention.

Meaning A presenter should think about their presentation style and make it enjoyable and exciting. This will keep the audience interested.

Notes: The adjective "stimulating" has the same suffix ("-ing") as the present participle of the verb "stimulate" ("stimulating"). There are many adjectives that have the same suffixes as present participles (e.g. "surprising", "interesting"), and past participles as well (e.g. "surprised", "interested"). These adjectives are called participial adjectives.

Activities

❶ • Objectives and audience: 3, 6
   • Content and structure: 1, 4, 8
   • Performance: 2, 5, 7

❷ **Teaching tips**

Put Ss in pairs. Ask each student to reflect on a presentation they gave in the past. With their partner, they should discuss the most and least successful aspects of this presentation. Ask them to identify what made these aspects successful or unsuccessful.

1. For me, the most challenging part of giving an academic presentation would be finding ways to hold the audience's attention, especially because the content in academic presentations can sometimes be quite technical. Another challenge for me is the delivery. Since I get nervous speaking in front of groups, I didn't always project a lot of confidence, and sometimes I even stumbled over my words.

2. I thought the most helpful tips involved ways to keep the presentation lively, such as moving around the room and playing music. I can see how these could really improve a presentation. Another good tip is to practice a presentation in front of people – maybe some classmates or friends. They can offer feedback on how I can improve the structure and delivery. For example, they can let me know if I'm speaking too quickly or too slowly.

3. To make my academic presentation more interesting, I would start by sharing a personal story or telling a quick joke. I think this would capture the audience's interest and help them feel relaxed, comfortable, and engaged.

❸ **Scenario 1**
I think the audience is confused because the expression "spring chicken" is an idiom that means a young person. Audience members from another culture might not be familiar with it.

Scenario 2
The questioner may refuse to shake the presenter's hand because the presenter offered his left hand. In Saudi Arabia, the left hand is considered unclean and is not used for handshakes.

Scenario 3
It's possible that the audience is not offering feedback because they think it would be impolite to do so. In Saudi Arabia, an indirect communication style is favored. Giving direct feedback is not very common in their culture. It doesn't necessarily mean that the audience is not engaged in the presentation.

Additional notes

Intercultural skill: *Giving presentations to a multicultural audience*

Here are some more areas to be aware of when we design a presentation for a multicultural audience.

Showing feeling and emotion
In some cultures, speakers communicate their enthusiasm and passion for a topic with a great deal of emotion. In other cultures, overt emotional displays can cause embarrassment among audience members.

Choosing visual aids

Certain images, symbols, and even colors can be highly sensitive in some cultures. When selecting graphics for a presentation, make sure that no images contain culturally inappropriate materials.

Making jokes

Although jokes can be a great way to put our audience at ease and liven up our presentation, ideas about humor vary drastically across cultures. What's funny in one culture may be upsetting or offensive in another.

Video

Scripts

P=Presenter; AM=Audience member; N=Narrator

P: Thank you for listening to my presentation on the economic challenges that Malaysia currently faces. I would now like to open the floor for a Q&A session.

AM1: Thank you for a very informative talk. I wonder, to what extent do you feel that Malaysia's economy is affected by Indonesia?

N: Worst-case scenario number 1: They ask you a question, and you don't know the answer. If this happens, don't panic. You can delay your answer. First, admit that you're not sure of the answer. Then you could say it is outside your area of knowledge and the scope of this lecture. Speculate as best you can and even defer to the questioner. Remember to stay confident. You don't have to know everything.

P: That's a good question, but it is a little bit beyond the scope of this talk. I would expect given Malaysia's close ties to Indonesia, as neighbors, some effect is inevitable.

AM2: Hello. I have studied this subject, and I want to point out that you said the agreement was signed in 1993, but it was actually signed in 2001.

N: Worst-case scenario number 2: They point out your mistake. OK, so you've made a mistake. Here is how you can make it a positive rather than a negative experience. First, acknowledge your mistake and thank them for pointing it out. Remember everyone is human and we all make mistakes. Forget it and move on.

P: I'm so sorry. You are right. I can't think how that happened. I'll correct it immediately. Thank you so much for pointing it out.

AM3: I listened carefully to your presentation and I'm afraid I disagree strongly with your suggestion that Malaysia should refocus its economic efforts on agriculture. In fact, I think this would be disastrous for the economy and the environment of Malaysia.

N: Worst-case scenario number 3: They disagree with you. Well, the purpose of a Q&A session is to raise different points of view. So first you should welcome the challenge. Let the audience member make their case. Don't get defensive or take the disagreement personally. Listen carefully to the argument. Give it fair consideration and respond. Defend your position but be open to the possibility that your position may have some flaws. Remember, this is a great chance to create dialogue between you and the audience.

P: Well, that's a very different point of view. It would be good to debate, but we may not have time to do so now. Could we make contact after the presentation and exchange views?

AM3: Oh, uh, yes. I'd be glad to …

AM4: How do you think your plan will affect traffic at Kota Kinabalu Airport?

N: Worst-case scenario number 4: You don't understand the question. What can you do? As usual, stay calm. Ask the person to clarify or repeat the question. Don't ask them to repeat many times, though. You can always ask them about the specific word or phrase you don't understand. Don't be afraid to ask the rest of the audience for help.

P: I'm so sorry. I didn't catch that word. Could you say it again please?

Language points

1. I would now like to open the floor for a Q&A session.

> **Notes:** The expression "open the floor" is a common way to invite an audience to take part in a conversation. Other expressions that can be used to start a conversation with an audience are "open things up", "kick off a discussion", etc.

2. Worst-case scenario

Meaning   The worst possible thing that could happen.

3. Speculate as best you can and even defer to the questioner.

Meaning   Try your best to answer the question and ask the questioner what they think.

speculate: *v.* to consider or discuss why sth. has happened 思索；沉思；推测；猜测
She loves to speculate about what robots will be like in the future.

as best you can: (*spoken*) as well as you can, even if this is not very good 尽最大努力；竭力
The student answers the exam questions as best he can.

> **Notes:** The expression is sometimes, though less commonly, expressed as "as best as you can". The use of the second "as" does not change the meaning of the expression.

defer to: to accept sb.'s opinion or decision, esp. because you respect them （尤因尊敬而）听从，接受（观点或决定）
I didn't know the way to the library, so I deferred to my friend who is more familiar with the city.

4. Let the audience member make their case. Don't get defensive or take the disagreement personally.

Meaning   Allow the audience member to explain their point of view. Don't get angry or offended.

take sth. personally: to feel that a failure or unpleasant situation is your fault and be upset about it 为某事感到自责
When John's classmate disagreed with him in a class discussion, John took it personally and became angry at his classmate.

5. Ask the person to clarify or repeat the question.

Meaning   Ask the person to explain the question or ask the question again.

clarify: *vt.* (*fml.*) to explain sth. more clearly so that it is easier to understand 澄清；阐明
Karen didn't understand the teacher's argument, so she asked him to clarify it.

Activities

❹ 1. B, F
   2. G
   3. D, E, H
   4. A, C

❺ **Teaching tips**

> Once Ss have completed the activity, ask them to define each of the words and expressions they used to fill in the blanks.

1. beyond the scope; inevitable
2. correct it; pointing it out
3. different; debate; make contact
4. catch that word

❻ Weaknesses in the logic of the presentation
Will AI in education actually result in higher efficiency? What if it takes students a long time to figure out how to use AI?

Controversial parts of the presentation
Is the reduced need for a physical presence in the classroom really an advantage? What about the advantages that come with socialization?

Points that are not covered
Can AI in education work for all fields of study? Does it work better for some fields than for others? Why or why not?

Over to you

Answers may vary.

Language in focus

Words and expressions

❶ 1. rigid
2. capture
3. stimulating
4. enthusiastic
5. or else

❷ 1. informative
2. speculate
3. delay
4. disaster
5. flaws
6. clarified
7. defers to

Collocations

❸ 1. made / had contact
2. stay calm
3. stay open
4. make contact
5. stay confident
6. lost contact

Translation

❹ Making payments through mobile devices has brought a lot of convenience to people. In China, people are enthusiastic about paying by scanning a QR code whenever they go shopping, eat out, or take public transportation. During an infectious disease outbreak, people keep their distance and avoid cash payments as best they can in order to prevent virus transmission. As a result, mobile payments have become the first choice of payment for most Chinese people. Internationally, some countries and regions such as Japan, South Asia, and Africa have made use of mobile payments more extensively, which has greatly promoted the development of mobile payment services.

Project

Teaching tips

- As a class, discuss the qualities of effective PPT slides. For example, slides should have stimulating images, feature key words, etc.
- Give Ss sufficient time to find images for their PPT slides and to write their presentation script / notes.
- Before Ss rehearse their presentations, have a class brainstorming session about different aspects of presentation delivery. Write down a list of aspects on the board (e.g. the speaking pace, the length of the presentation, the speaker's confidence level, body language). As Ss rehearse their presentations in groups, other group members should provide feedback on each of these aspects.

Answers may vary.

Suggested evaluation criteria

Content	• **Relevance:** Your PPT slides and your presentation clearly address the topic and do not include irrelevant information or graphics.
Organization	• **Structure:** Your presentation is well-organized with a clear introduction, main body, and conclusion. • **Clarity:** Each of your PPT slides has a clear layout.
Language	• **Appropriacy:** Your presentation is written in a formal tone and formal language. • **Diversity:** You have used a wide range of vocabulary in your presentation and your PPT slides.
Delivery	• **Visual aids:** Your PPT slides support the main ideas of your presentation. • **Fluency:** Your presentation flows smoothly and naturally.

Text A

Preview task

Teaching tips

- The purpose of the Preview task is to give Ss a framework for autonomous learning. Ss are required to read the text before class, and answer the questions provided. The questions are designed to connect Ss' prior knowledge with the text and to have Ss make predictions and think critically about the topic of the text, etc.
- Ss must get used to working their way through questions without guidance, and come to class as prepared as possible. This way, they will be able to participate in class in a more efficient way. If they come to class with the raw information of the text already understood, then they will be better able to engage with deeper aspects of the content, which will exercise their critical thinking skills.
- T should encourage Ss to do this task as homework for the previous class. T could also organize different classroom activities based on the questions.

❶ Based on the title and the images, I think the text will discuss a variety of dangers posed by AI. These may range from things as simple as AI outsmarting us at games like chess and Go, to more serious dangers, like assuming total control of our world.

❷ *Answers may vary.*

How AI threatens our way of life

Background information

AlphaGo

The five-game battle mentioned in the text took place between March 9 and 15, 2016 in Seoul, South Korea. The match was between one of the world's top Go players, Lee Sedol, and a computer program, AlphaGo. The historic match drew a lot of media attention both in South Korea and internationally because of its implications for the field of AI.

AlphaGo was designed by Google DeepMind. It is equipped with "two brains", a policy network and a value network, to help it solve problems during the Go game. Because of the unique complexity involved in the game Go, designing an AI that could beat a human expert had generally been regarded as nearly impossible before the appearance of AlphaGo.

However, AlphaGo stunned the world. It proved to be the better player. In the five-game match against Lee Sedol, AlphaGo won all but one game, the fourth.

Text interpretation

1. 主题探索

本文主题是人与科技，探讨了人工智能如何威胁我们的生活方式。作者主要讨论了三个方面的影响：侵犯隐私，提供有偏见的观点，深度伪造。读者在阅读本文的过程中可以思考人类应该如何应对人工智能挑战这一难题。基于课文阅读，教师可带领学生思考以下

问题：1）如何定义人工智能；2）如何正确看待人工智能的利与弊；3）如何应对因使用人工智能所带来的法律法规、道德伦理、社会治安等方面的问题；4）如何建立人工智能协同创新体系，使之造福人类。教师可引导学生联系生活学习经历，对以上主题进一步探索和反思，引导学生正确认识人工智能多元的社会影响，并鼓励学生以创新的姿态积极参与我国人工智能发展和建设，增强服务国家的意识，为使我国成为人工智能科技强国而努力。

2. 篇章分析

本文是一篇议论文，介绍了人工智能在生活中的应用，阐述了人工智能给我们的生活带来的负面影响。从篇章结构上分析，本文可以分为三大部分：

第一部分（第一至第三段）以名为阿尔法围棋的人工智能系统以 4 比 1 击败人类围棋冠军李世石的事件引出文章的主题，并在第三段结尾提出了作者的论点：人工智能技术的应用有时会给人们的生活带来负面影响。

第二部分（第四至第六段）是文章的主体，从三个方面详细阐述了人工智能技术的应用给人们的生活带来的负面影响。第一个方面是人工智能在市场营销领域的使用侵犯了人们的隐私；第二个方面是社交媒体网站上有针对性推送的文章和新闻容易使人们产生偏见；第三个方面是"合成媒体"导致深度欺骗，可能会改变社会看待现实的方式。

第三部分（第七段）为结尾段落，对文章的主题作归纳总结。作者提出了正确看待人工智能技术的态度：不用害怕人工智能，小心谨慎地评估人工智能技术带来的危险和威胁，对其进行管理，充分利用人工智能给我们带来的好处。

教师除了引导学生理解篇章主题与结构，还可以引导学生分析本文的论证方式、术语定义以及篇章衔接方式。

本文使用了举例论证的方法，通过列举具体的事例让论证更具体、更具说服力。比如，在论证"人工智能侵犯了人们的隐私"这个观点时，作者举了两个例子，

第一个例子是亚马逊网上书店，该书店通过系统分析客户消费习惯和行为来预测客户可能喜欢的其他产品。第二个例子是通过邮件和朋友分享了要去度假的消息后，就收到了关于旅行箱和防晒霜的广告。这两个例子都非常贴近学生的生活，教师可以引导学生对此进行深入讨论。

本文概念使用准确，对术语定义简洁、通俗易懂。如：deep learning（Para. 2）、personalized recommendations（Para. 4）、synthetic media（Para. 6），作者通过简单的语言，辅以具体的例子，帮助读者理解概念。

另外，作者在论证过程中使用了相关的连接词，让行文衔接顺畅，也帮助读者更好地理解句子之间、段落之间的逻辑关系。如：one such example（Para. 4）、this instance（Para. 4）、these same applications（Para. 5）、another situation（Para. 6）等。

3. 拓展阅读

为加深学生对我国人工智能发展的现状及未来的了解，可拓展阅读中国日报网和新华网的相关文章，如：

- 2021年发表在中国日报网的文章"AI reshaping health and wellness sector"。
- 2021年发表在新华网的文章"China tops world in AI patents: Minister"。

Language points

1. In a historic five-game battle watched all over the world, a system called AlphaGo, developed by DeepMind, defeated Lee Sedol by 4 games to 1. (Para. 1)

> **Notes:** "Historic" is used to describe notable events or people in history (e.g. "a historic battle"), while "historical" is a more general term used to describe history (e.g. "the historical use of an object").

2. **Many people had considered Go to be a game that represented what made human intelligence unique, and yet it had just been mastered by a machine. (Para. 1)**

   Meaning   Many people thought Go was a game that could only be mastered by humans. But a machine had just become an expert at the game.

   > **Notes:** The pronoun "it" in this sentence refers to the game Go.

3. **Experts had predicted that this would not have been possible for at least another decade. (Para. 1)**

   Meaning   Experts thought it would take at least another 10 years for this to happen.

   > **Notes:** The expression "would not have been possible" is in the subjunctive mood. It is used to describe an unreal future in the past situation. In this case, the unreal future in the past situation is that technology had developed at a slower rate. The implication of the sentence is that technology has developed much faster than expected.

4. **Two of the more sensational relate to the future: Could bad AI take over the world? What about the changing face of morality in a world where robots seem to think and act exactly like humans? (Para. 3)**

   Meaning   Two of the more dramatic questions are about the future: Could bad AI eventually control the world? Do moral questions come up when robots can think and act just like humans?

   sensational: *a.* intended to interest, excite, or shock people, used in order to show disapproval 大肆渲染的, 耸人听闻的（含贬义）
   Films about robots often feature sensational ideas about this technology.

   > **Notes:** If we say that the face of an area, institution, or field of activity is changing, we mean its appearance or nature is changing. "The changing face of morality" means that ideas about morals change over time. The word "face" in the expression means "the qualities that sth. such as an organization has, or wants people to think it has" (面貌; 风貌).

5. **Many websites also use customer profiles to decide what advertisements or promotions are most relevant for that person. (Para. 4)**

   Meaning   Lots of websites collect personal information about their customers. They use this information to decide what advertisements the person would be most interested in.

   profile: *n.* [C] a description of a person, group, or organization that contains all the details that sb. needs （人、团体或组织的）简介, 概况
   I'm always updating my profile on this website with new photos and new information about myself.

   > **Notes:** The word "profile" can also function as a verb, meaning "to give a description of a person, place, or organization in an article, or a television or radio program". For example:
   > *Every week a different author is profiled in the books section of the newspaper.*

6. **No sooner have they sent a friend an email suggesting they are thinking about going on holiday than ads for suitcases and sun cream start popping up all over their computers. (Para. 4)**

   Meaning   As soon as they send a friend an email in which they mention the idea of going on holiday, adverts for suitcases and sun cream start appearing on their computer screens.

   pop up: to appear very quickly or suddenly 突然出现; 迅速出现
   While I was watching the video, a screen popped up saying there was a system error.

7. **It results in a situation where people have a very limited or biased view of the world, because they are not exposed to diverse viewpoints; they get only the kinds of content they like to read, with the kinds of messages they like to hear. (Para. 5)**

   Meaning   The result is that people have a narrow view of the world, since they do not see other points of view. They only see content that they like or agree with.

   biased: *a.* unfairly preferring one person or group over another 有偏见的; 偏袒一方的
   Her opinions are biased because she only ever talks to people who share her views.

   expose sb. to sth.: to make it possible for sb. to experience ideas, events, methods, etc. that are new to them 使体验, 使接触（新事物）
   Because Kyle traveled a lot in his childhood, he was exposed to lots of different cultures.

8. **Another situation with potentially much graver effect is found in a field known as "synthetic media", a term that refers to any content, be it text, audio, images or video, produced by AI technology. (Para. 6)**

   Meaning   Another situation that could have more serious consequences is in "synthetic media". This term means any texts, audios, images, or videos that are created by AI technology.

9. **AI systems can be "trained" by hearing many hours of a person talking, for example, and then are able to synthesize the audio to make it sound as if that person is saying anything the programmer wishes. (Para. 6)**

   Meaning   Programmers can train AI systems to make it seem like a particular person in an audio or video is speaking. To do this, the AI system listens to that person talking for hours. Then, it is able to produce new combinations of that person's words. Using this method, the programmer can use AI to create whatever speech they want.

   synthesize: *vt.*
   1) to produce sounds using a synthesizer （用音响合成器）合成（声音）
      The musician synthesized keyboard, violin, and trumpet sounds to create a new piece of music.
   2) to produce sth. by combining different things or substances 合成
      Now it's your job to synthesize those thoughts and create a final presentation for yourself.

10. **Once deep fakes become sophisticated enough, we should all be worried that they could even change the way society views reality. (Para. 6)**

    Meaning   When fake content is hard to distinguish from real content, we should all be worried. It could change the way we think about what is real.

    fake:
    n. [C] a copy of a valuable object, painting, etc. that is intended to deceive people 赝品; 假货
    Sometimes a trained eye is needed to tell the difference between a fake and an authentic piece.
    a. made to look like sth. real in order to trick people 假的; 伪造的; 冒充的
    In order to protect his privacy, he has to create fake profiles on websites.

> *He faked his knowledge about computer programming in order to get a job at a tech company, and was later found out and dismissed.*

11. **While all of this may seem overwhelming and even frightening, it is important to remember that the first reaction to all new technology is often fear and skepticism. (Para. 7)**

   `Meaning` This might make us feel confused, and even seem very scary. However, we should remember that people often feel scared and suspicious about new technology at first.

   > **Notes:** In the sentence, the author recognizes the validity of people's worries and discomfort about new technology. However, the author softens these worries by noting how common it is to feel this way whenever we first encounter new technology.

12. **Then we can do our best to manage the capabilities of AI without depriving ourselves of the benefits it can bring us. (Para. 7)**

   `Meaning` Then we can try to control AI without losing the advantages of it.

   deprive: *vt.* (~ **sb. of sth.**) to take sth. from sb., esp. sth. that they need or want 剥夺
   Since he didn't attend the lecture, he deprived himself of the chance to learn more about the topic.

Comprehension

❶ 1) feel uncomfortable
   2) online content
   3) diverse viewpoints
   4) indistinguishable
   5) a media scandal
   6) society views reality

❷ 1, 4

❸ • In the text, AlphaGo is an example of an AI system, and social media sites are examples of websites that use targeted marketing.
   • The text could include examples of how a bad AI system could take over the world. It could also include specific examples of "deep fakes".

Additional notes

Reading skill: *Recognizing and examining exemplification*

Examples in texts can be brief or extended. Brief examples are often used to help illustrate simple ideas, or ideas with which the audience may already have some familiarity.

Extended examples are commonly used to clarify more complicated concepts. Such examples are often woven through several paragraphs of a text. They may also be referred back to many times throughout a text.

Here are some common expressions to introduce extended examples.
• Suppose that …
• To give you an idea …
• To show you how this works …
• Consider this case …

Critical thinking

❹ **Teaching tips**

   • Before Ss begin the task, have them read the Critical thinking skill box and check their understanding of "confirmation bias".
   • Next, have a brief class discussion about some of the points raised in the text. Make a list on the board so that Ss can refer to these points as they complete the activity.
   • Once Ss have completed the activity, ask Ss to think of times in their lives when they have experienced confirmation bias. Ask a few volunteers to share their experiences with the class.

Step 1

Points I agree with	Points I disagree with
Personalized recommendations have been quite successful for online companies.	Concerns about AI taking over the world are sensational.
Many social media users develop biased world views.	People feel uncomfortable about having their privacy invaded.
The threats posed by AI should be carefully assessed.	Deep fakes could change the way society views reality.

Additional notes

Critical thinking skill: *Identifying bias*

Confirmation bias is not the only type of bias. There are many other types of bias to be aware of. Here are some examples.

Anchoring bias
This type of bias is the tendency to rely too heavily on the first piece of information we get about a specific topic. We then view subsequent information from the reference point of the first piece of information (or anchor).

Cultural bias
A cultural bias is a tendency to interpret things based on the values of our own culture. It often involves regarding our own culture's ideas about subjective concepts, such as justice or beauty, as objectively true and superior.

Additional activity

Have Ss read the additional notes about identifying bias. Then ask Ss to come up with an example of each type of bias mentioned (anchoring bias, cultural bias).

Anchoring bias: A man wants to buy a new watch, but isn't sure how much it should cost. The first watch he sees costs $500. The second watch he sees costs $100. He thinks the second watch is cheap because he is considering the price with reference to the first watch.

Cultural bias: An American woman meets a Japanese woman for the first time. Because the Japanese woman doesn't maintain eye contact for very long, the American woman decides the Japanese woman is being impolite. In fact, in Japan, direct prolonged eye contact can be viewed as aggressive.

Intercultural writing

5 Teaching tips

- Put Ss into small groups. In their groups, ask them to discuss some other possible threats of AI. Ask them to consider their own attitudes toward these threats (as well as the threats already mentioned in the text), and why they hold these attitudes. For example, do they think their attitudes are informed by their culture? Or by individual beliefs? Then ask Ss to consider how different cultural attitudes may affect concern levels over these threats.
- Follow up by asking Ss to come up with ways that one or two of these threats can be mitigated.

In recent years, China has witnessed a great acceleration in AI innovation. Along with this rapid development, however, come growing public concerns about AI.

One common concern revolves around privacy. Big companies are collecting, analyzing, storing, and transmitting various kinds of personal and other crucial data, such as phone numbers and home addresses. To protect people's privacy, we can create stronger laws about who can access our personal information.

Another major concern about AI is deep fakes. As technology develops, it will be difficult to differentiate real images and recordings from fake ones. Since this has the potential to cause chaos in a society, it is a huge concern in China. To guard against this type of chaos, we can enact policies around the creation of deep fakes.

Concerns about AI are valid but manageable. If we stay aware of potential threats, we can find ways to reap the rewards of AI.

Language in focus

Words and expressions

❶ 1) morality
2) sensational
3) capable
4) prominent
5) fake
6) generated
7) evidence
8) bias
9) scandal

❷ 1. I am less concerned about the long-term problems than I am about the ones that are affecting us here and now.
2. He always likes to be in control of every situation he is in, so you have to work hard to make sure he doesn't take over the discussion.
3. Universities try hard to put forward as many different viewpoints as possible to make sure students are exposed to diverse viewpoints.

4. AI with superhuman intelligence already exists in some respects: After all, no one can do math as fast as a calculator.
5. Since the new phone was announced, ads for it have been popping up all around the city center.

Collocations

❸ 1. diverse tastes
2. grave concerns
3. diverse culture
4. diverse views
5. grave situation
6. grave impact

Banked cloze

❹ 1) F   2) I   3) O   4) G   5) J
6) C   7) L   8) E   9) H   10) B

Translation

❺ Over the past May Day holiday, Shanghai's Huangpu District received nearly 400,000 tourists. To ensure safe and smooth traffic around the prominent scenic spots, Huangpu police made use of a smart police system with the capability of predicting passenger and traffic flow precisely to monitor crowd situations in real time and implement control measures in time, such as dispersing crowds and directing one-way circulation. It is evident that smart tech can help implement preventative measures and ensure safer and more enjoyable experiences for tourists.

Text **B**

Before you read

1. I think that what makes art meaningful and moving is the effect it has on us. For example, sometimes when I see a beautiful painting, I have a strong emotional reaction. Other times, seeing a beautiful painting prompts me to reflect on an aspect of life in a new way.

2. • Yes, I think a machine can create art. If the computer-generated creation has an emotional effect on us or makes us consider life in new ways, then I think it should count as art.

   • No, I don't think a machine can create art. Machines can only do what they are taught, while humans can generate ideas and think out of the box, which means humans can be creative. Hence, machines can never be compared with human brains in art.

Is computer art really art?

Culture notes

1. Deepjazz

The deepjazz computer program, a deep learning music generator, is designed to learn from input sound files and use this learning to generate new jazz compositions. It relies on the same technology behind other famous AI programs, such as Google's AlphaGo.

Ji-Sung Kim developed deepjazz in just 36 hours during an event for computer programmers at Princeton University. He was surprised by the instant popularity of his program, which earned mainstream media attention.

2. Vocaloids

Vocaloids are singing synthesizers generated by computer software, developed by the company Yamaha. The software can serve as a virtual singer in the computer to generate various vocals for users. The newest version, Vocaloid 5, has four voicebanks with over 1,000 vocal phrases and over 1,000 audio samples, which allows users to employ the singing voice quickly and customize their own vocal. The product has been used by both professional musicians and ordinary computer users.

3. AICAN

The name AICAN is an acronym for Artificial Intelligence Creative Adversarial Network. In developing AICAN, Dr. Ahmed Elgammal showed the program thousands of portraits from the last five centuries. The program studied the patterns of portraits from this set, analyzed the brushstrokes, imagery, and styles, and learned how to create its own portraits. More than that, AICAN even created its own artistic style.

One major criticism of AICAN is that it did not understand the symbolism or influences of the portraits it learned from. As a result, critics argue that the program fundamentally failed to understand the meaning of these pieces, or of art itself.

Despite criticism, the first AICAN solo exhibit, held at the Hoerle-Guggenheim Gallery in New York City, was a big success, attracting lots of attention in the art and technology worlds and many buyers.

Language points

1. The 50 years between these two masterpieces saw a rise in computer-generated music of all kinds. (Para. 3)

Meaning   There were 50 years between these two great musical works. During this time, there was an increase in all kinds of music created by computers.

> **Notes:** When we use the expression "see a rise", the subject of the verb "see" is typically a time period or a place, not a person. In the sentence, the subject is "The 50 years between these two masterpieces". The idiom in this context personifies the subject, which makes it more relatable.

2. With the more recent development of AI and deep learning, however, the depth and complexity involved in the creation of computer-generated music rivals that of conventional techniques. (Para. 3)

Meaning   The recent developments in AI and deep learning have made computer-generated music deeper and more complex. Computer-generated music is now almost as deep and complex as music created by humans.

rival: *vt.* to be as good or important as sb. or sth. else 与…匹敌；与…媲美
In terms of creativity, Jack's ideas always rival my own.

> **Notes:** The word "rival" can also be used as a noun, meaning "a person, team, or business that competes with another". For example:
> *My rival in the AI competition is one of the best students at the university.*

3. People just hum a piece of music and the phone plays back their own custom AI-generated song. (Para. 4)

Meaning   People can hum a song and AI on their phone can create a personalized song.

custom: *a.* (*only before noun*) (*esp. AmE*) custom products or services are specially designed and made for a particular person 定制的；定做的
In the future, we will all have custom robots to suit our own needs.

4. Sometimes in "computer music" it's also the other way around – humans name the tune, while software dances to it. (Para. 5)

the other way around / round: the opposite of what you have just mentioned 正相反；倒过来
Sometimes I inspire my best friend and sometimes it's the other way around.

> **Notes:** The sentence acts as a transitional sentence between Paragraphs 4 and 5, both of which address the idea of "computer music". Paragraph 4 is focused on music that is created by computers. The text implies that people dance to this computer-generated music. Paragraph 5, on the other hand, focuses on the Vocaloid Miku, a computer program that dances to music created by humans. The sentence helps show that there are two ways AI can participate in music: AI can create music and AI can dance to music.

5. In the case of "Vocaloids", the market has spoken loudly. (Para. 5)

Meaning   The market has shown clearly the popularity of Vocaloids.

> **Notes:** The expression "speak loudly" is used to say that something expresses an idea very clearly, without using words. For example:
> *As for her honesty, the facts speak loudly.*

6. Recently, Dr. Ahmed Elgammal, creator of an "artificial intelligence artist" called AICAN, held the first solo exhibit of an AI artist at a well-known contemporary art gallery in New York City. (Para. 6)

solo: *a.* (*usu. before noun*) done by one person alone, without any help 单独的；独自的
The musician sold plenty of tickets to his solo shows.

7. **The exhibit featured several images of "Faceless Portraits" that resemble traditional portraits of people but with abstract forms rather than facial features. (Para. 6)**

   Meaning The art show had images of "Faceless Portraits". These images look like ordinary portraits of people. However, instead of faces, the images use abstract shapes.

   feature:
   vt. if sth. features a particular person or thing, they are an important part of it 以…为特色；是…的特色
   The film featured many different types of AI technology.
   n. [C] an important part or aspect of sth. 特点；特征；特色
   The main feature of this AI program is that it writes poetry.

   resemble: *vt.* (*never passive*) to be similar to sb. or sth., esp. in appearance （尤指外表上）像，类似，与…相似
   The two sisters resemble each other in many ways.

   > **Notes:** The noun form of "resemble" is "resemblance", formed by adding the suffix "-ance" to the verb. It means "a similarity between two people or things, esp. in the way they look". For example:
   > *There is a strong resemblance between the woman and her daughter.*

   abstract:
   a. based on general ideas or principles rather than specific examples or real events 纯理论的；纯概念的；抽象的
   I prefer abstract art to traditional art, because abstract art provides more freedom for interpretation.
   n. [C] a summary of a report, speech, or academic paper 摘要；概括
   The student didn't have time to read the whole article, so he just read the abstract.

8. **Art requires an emotional investment, and the promised return is a shared slice of the human experience. (Para. 7)**

   Meaning To engage with art properly, people need to invest their emotions into the art. In return, they get to share the emotional experience that created the work of art.

   a slice of: a part or a share of 一部分
   All the people who helped develop this software deserve a slice of the profits.

9. **"Computer art" doesn't really exist any more than does "paint art" or "piano art". (Para. 8)**

   > **Notes:** Grammatically, "does" can be placed either before "paint art", or else at the end of the sentence. Either way, the meaning is that "computer art" is the same as "paint art" or "piano art".

10. **The algorithmic software was written by a human, after all, using theories thought up by a human, a computer built by a human, specs written by a human, materials gathered by a human, at a company staffed by humans. (Para. 8)**

    staff:
    vt. (*usu. passive*) to provide the workers for an organization 为（机构）配备职员
    The company is staffed by talented employees.
    n. [sing., U] the people who work for a particular company, organization, or institution (It can be followed by a singular or plural verb.) 员工，全体职员，全体工作人员（后可接动词的单数或复数形式）
    The staff at this company all work very hard.

    > **Notes:** The phrase "… by a human" is used several times in the sentence in the same grammatical pattern. This is an example of parallel structures used to stress the importance of human involvement in the creation of the software.

11. **When that day comes, the artist's role will consist of formulating the numbers, by arranging an array of points in groups, a desired pattern. (Para. 9)**

formulate: *vt.* to develop sth. such as a plan or a set of rules, and decide all the details of how it will be done 规划；制定；准备
A long-term program should be formulated for scientific and technological development of AI.

> **Notes:** "Formulating the numbers" means figuratively doing the mechanical part of the programming. The phrase "a desired pattern" serves as an appositive and adds information about the "array of points in groups". Without this phrase, the sentence would still be grammatically correct.

12. **Freed from the boring demands of technique and the mechanics of picture-making, the artist will simply "create".** (Para. 9)

    Meaning The artist will not have to bother with boring techniques or with the process of making pictures. Instead, the artist will simply be free to create.

    free from: to remove sth. unpleasant that affects sb. or limits their behavior 使摆脱（不良的影响）；使免除（约束和限制）
    The children were freed from their afternoon chores for the day.

    mechanic: *n.*
    1) (**the ~s of**) [pl.] the way in which sth. works or is done 工作方法；工作技巧
       The mechanics of this device are so complex that only a trained engineer can understand them.
    2) [C] sb. whose job is to repair vehicles and machines 机修工；技工
       John has worked as a mechanic in this car factory for 20 years.

13. **They argue that it is also important to consider how much we value technique and ability in the creation of artwork.** (Para. 10)

    Meaning They think that it is important to consider how much importance we attach to the technique and abilities of artists.

value: *vt.* to consider sb. or sth. to be important 重视；尊重
Older people's knowledge and experience are valued in many cultures.

14. **It is not only the pleasure one experiences listening to a great piece of music or viewing a brilliant sculpture; it is also the disbelief and wonder at how it is even possible for a person to create such a thing.** (Para. 10)

    Meaning Part of the value of art comes from the enjoyment we get when we listen to great music or see a beautiful sculpture. We can also find value in our amazement at how someone managed to create the art.

15. **Whether one's response to it is positive or negative, it is definitely true that computer-generated artwork is the product of a legitimate artistic movement.** (Para. 11)

    Meaning Some people may like computer-generated art, and some people may dislike it. Regardless, computer-generated art is certainly a valid art form.

    legitimate: *a.* fair and reasonable 公正合理的
    Although the presenter seemed offended by the question, most of the audience agreed that it was a perfectly legitimate question.

Critical thinking

- I agree with the author that AI technology redefines art. Throughout history, we have always thought of art as a human-generated effort. It has been seen as a fundamental human expression. If computers can create art, this definition of art needs to be reworked.

  However, I don't think that computer art has changed my standard of art. If a painting is beautiful or has a profound effect on me, I don't really care who – or what – created it.

- I disagree with the author that AI technology

redefines art. To me, the fundamental quality of art is that it can inspire strong emotional reactions in people. Because of this, it makes no difference who or what created the art. I can have just as strong a reaction to a painting created by a computer as to a painting created by a human.

However, I think that computer art has changed my standard of art in some ways. I think computer art has elevated my standard of art because so much more can be achieved with computers.

Self-reflection

自我反思是《新未来大学英语 综合教程》的有机组成部分。一方面，自我反思是指学生结合自身各单元的学习情况，自主地对自己的学习进行回顾、思考、监控、概括、分析和总结，并在此基础上加以改进，以寻求成长的一种有效途径。另一方面，自我反思是指教师可以通过观察和分析学生的自我反思，系统、持续地剖析教学中的问题，改进教学实践，提升教学效果，促进自身发展。

我们建议：
（1）学习完每个单元后，教师可引导学生在课上或课下花5分钟左右的时间完成自我反思。这样，学生可以看到自己哪些学习目标达成了，哪些还需要继续努力。对于尚未掌握的内容，学生可返回本单元相关部分，进一步复习巩固，也可利用本教材的数字资源或网上其他相关资源进行自主学习，还可寻求同学或教师的帮助。
（2）为了更好地监控学生的学习效果，教师可以在每单元结束后，收集不同层次学生的反思记录，针对教学中的问题进行有针对性的答疑解惑。学期结束后，教师可收集班上学生的自我反思，将自我反思的数据作为评价教学效果的依据，审视自己的教学效果。教师还可以结合其他数据（如邀请同事或专家观摩自己的课堂教学、课堂录音和录像、学生访谈等），整体反思自己的教学效果，进而为下学期的教学提供参考依据。

Text in Episode 1

驾驶领域的人工智能

最近的一份安全报告指出，意外伤害是 44 岁以下美国人的主要死亡原因，其中因驾驶时走神而造成的死亡占比非常高。对此，一些州政府已经考虑专门为自动驾驶汽车规划多条路线。专家估计，只需消除人为错误因素，自动驾驶汽车可以将事故率降低80%以上。在许多情况下，自动驾驶技术确实优于人的驾驶技术。报告还列出了自动驾驶其他附加的好处，包括减少乘客的旅程时间，以及有可能通过更有效地使用燃料减少排放量。

尽管如此，一些人还是对自动驾驶汽车的成本和安全性表示担忧。他们认为，现实世界之不可预测与复杂远非计算机能轻易处理。此外，在自动驾驶汽车发生事故的情况下，谁承担法律责任仍然是个问题。

安防行业的人工智能蜜月期？

如今，警察和私营安保公司正在使用越来越多的人工智能来保护我们和我们的财产安全。事实证明，面部识别和行为分析等高科技安全功能在减少犯罪方面非常有效。2019年，纽约市警方很有可能阻止了一次恐怖袭击，因为他们使用面部识别技术甄别了两名已知恐怖分子，这两名恐怖分子曾在市中心地区徘徊。

有人怀疑这是否只是人工智能在安防领域的蜜月期，并怀疑犯罪分子早晚会打败这些"机器人警察"。还有一些人质疑使用人工智能来监控公共场所和记录每个人的活动 —— 无论是否犯罪 —— 这一行为是否有违公德。对许多人来说，这轻则严重侵犯到他们的隐私，重则致使个人信息被大量收集，从而使公民容易遭受身份盗窃、勒索甚至绑架等犯罪行为的伤害。

人工智能如何影响教育

近来，通过将人工智能技术应用于课堂自适应学习技术，教育领域取得了很大发展。自适应学习使用计算机算法来改变课程材料以满足学生的个性化需求。人工智能技术还可以为学生提供虚拟平台，他们可以通过平台接收反馈并与系统识别的具有类似需求的其他学生合作。

尽管人工智能有这些好处，但若学生过度依赖这种技术，将会限制他们的社交和人际关系发展。

Text in Episode 2

如何做一场成功的学术报告

对任何人来说，做报告都会是充满挑战和令人伤神的经历。学术报告尤其困难，因为它们通常遵循严格的范式，并要求报告人使用特定的专业术语来讨论所呈现的信息。此外，演讲风格也需更加正式。

为了做一场有效的学术报告，应考虑以下几点。

目标和受众

学术报告应始终有明确和具体的目标。你的目标需要明确说明希望听众从报告中学到什么。你可以问自己这样的问题：报告的目的是什么？我需要传递信息、说服听众还是激励他们？

在确定报告目标之前，你还应该了解听众的背景、价值观和兴趣。这样一来，你的报告可以和听众相关、符合他们的兴趣，并且内容详略得当。

内容和结构

学术报告必须内容新颖，否则就不值得一听。即使听众熟悉你的报告主题，你也需要提出一些新的或不一样的观点。

学术报告必须直截了当、合乎逻辑。避免使用复杂的结构，聚焦于清楚地解释内容这一目的，都很重要。

学术报告的基本要素包括引言、清晰的中心论点、支持论点的例子、研究结果和结论。报告结尾还应包括参考文献列表。

提供丰富多样的内容来吸引听众的注意力也很重要，否则他们很快就会感到枯燥。你可以以图表的形式呈现数据、引用专家的话、提及历史或当前事件，甚至在适当的情况下联系个人经历。

展示

报告人应该注意自己的演讲风格，确保讲演有趣且充满热情，从而让听众全程聚精会神。

勤于练习讲演，直到熟悉关键要点。通过练习，你也许可以发现潜在的问题，并在规定时间内完成报告。练习也会让你更加自信。

一场成功的报告会有效地利用各种声音和视觉效果。播放音乐、使用音效、四处走动、让听众参与都是让氛围保持热烈的好方法。但是，不要过多使用这些元素，因为这会使报告看起来不够学术。

最后，请记住，即使报告风格是正式的，笑声仍然是允许的！与听众分享有趣的时刻或故事能让倾听报告的每个人都感到更舒适、更投入。

Text A

人工智能如何威胁我们的生活方式

1   2016年发生了一件令世界各地的技术专家震惊的事：在历史悠久的围棋项目中，一个人工智能系统打败了世界职业冠军选手。在全球瞩目的历史性五番大战中，阿尔法围棋以4比1击败了李世石。阿尔法围棋是由谷歌旗下的人工智能实验室DeepMind开发的程序。许多人认为围棋是一种只有人类才能玩的游戏，但这一游戏就在刚刚被机器掌握了。专家曾预测，至少在未来十年内，这是不可能发生的。

2   系统可以通过多种方式构建其智能，其中最杰出的

方式被称为"深度学习"。这种方法的工作原理是让计算机系统多次重复任务，在每次重复时做出改进，从而更接近系统预设的结果。为了让阿尔法围棋学会如何打败人类围棋冠军，该程序与自己下了很多次棋。每下一次，它都会改进走子和学习新的成功策略。其中的某些策略是人类之前没有发现的。

3   对于阿尔法围棋的胜利，人工智能专家倍感震惊。这也引起了关于人工智能威胁论的深入讨论。其中有两个较为耸人听闻的讨论与未来相关：邪恶的人工智能会接管世界吗？在一个机器人似乎可以完全像人类一样思考和做事的世界里，道德会变成什么样子？这些无疑是耐人寻味的问题，但我们现在有更重要的关注点：人工智能技术正如何应用于我们的生活，并不时产生负面影响。

4   人工智能在市场营销领域的应用就是其中一个例子，也就是"个性化推荐"。大多数消费者都有过这样的经历。以亚马逊网上书店为例，它采用了这项技术，效果显著：亚马逊的系统分析客户的消费习惯和行为，并利用数据来预测客户可能喜欢的其他产品。许多网站还使用客户资料来确定最贴近特定客户的广告或促销手段。在某些方面，这似乎是双赢的。公司不需要花很多钱寻找潜在客户，人们也不会浪费时间大海捞针似的选择他们喜欢的东西。然而，人们可能会感到不安，因为他们的隐私被侵犯，也不知道有多少个人信息被市场营销人员知晓。他们刚给朋友发了一封电子邮件说正在考虑去度假，电脑屏幕上就突然出现手提箱和防晒霜的广告。

5   相同的目标营销应用在社交媒体网站上也很普遍，这不仅决定了向用户展示哪些种类的广告，而且决定了用户可能喜欢什么样的在线内容。这包括他们可能想看的视频和图片。最重要的是，还包括他们更有可能关注的文章和新闻。这种做法会导致人们对世界的看法非常有限或片面，因为他们没有接触到不同的观点；他们只能获取自己喜欢阅读的内容和喜欢听到的信息。

6 另一种可能带有更严重影响的情况出现在一个被称为"合成媒体"的领域。"合成媒体"指通过人工智能技术制作的任何内容，无论是文字、音频、图像还是视频。该技术已经先进到足以生成无法用肉眼将其和真人区分开来的人脸。这项技术正在从静止图像转向音频和视频。举个例子，人工智能可以通过长时间听某个人说话，得到训练，从而合成音频。音频听上去就像这个人在说程序员让他说的任何话。滥用此技术的可能性很明显，任何人可能都有卷入媒体丑闻的风险！一旦深度伪造变得足够精密，我们都应该担心这类技术甚至会改变社会看待现实的方式。

7 虽然所有这一切都似乎让我们不知所措，甚至胆战心惊，但记住有一点很重要，那就是我们对所有新技术的第一反应往往都是恐惧和怀疑。为什么人工智能就应该与众不同？小心谨慎地评估真正的危险和威胁是目前最重要的事。然后我们可以竭尽所能管控人工智能的功能，而无须剥夺人工智能给我们带来的好处。

Text B

计算机艺术真是艺术吗?

1 1964年12月在新泽西州，约翰·科尔特雷恩和他的音乐伙伴们录制了一首歌曲《至爱》。这张爵士乐专辑被认为是科尔特雷恩的杰作，销售了一百万张。

2 五十年后，在距新泽西州南部五十英里的地方，二十岁的普林斯顿大学学生金智成编写了一种算法，教计算机学习演奏爵士乐。这种深度学习音乐生成器被称为"deepjazz"（深度爵士），它引起了全世界技术热衷者和音乐爱好者的极大兴趣和怀疑。

3 这两个杰作相隔五十年，这之间见证了由计算机生成的各种音乐的兴起。然而，凭借着人工智能和深度学习的最新发展，计算机创作之深度以及复杂程度足以与传统音乐的创作技法媲美。

4 金是最年轻一代计算机"艺术家"中的一员。"这个想法非常深刻。"他说。据他介绍，人们可以使用人工智能来创造艺术，而通常我们认为只有人类才能创作艺术。想想人工智能可以如何塑造音乐行业，就让人感到兴奋。人们只需哼一段音乐，手机就会播放人工智能生成的定制歌曲。

5 有时在"计算机音乐"中，还有另外一种方法——人们确定曲调，软件就会演绎歌曲。在Vocaloids这个案例中，市场的反响相当热烈。Vocaloids是由雅马哈开发并由日本公司克里普敦未来媒体制作的歌唱合成器。作为一种流行Vocaloid，"初音未来"（名字翻译为"来自未来的第一个声音"）甚至是北美巡演的主演！它以全息图的形式出现，在纽约的哈默斯坦舞厅吸引了大批观众，演出票价为75美元一张。"初音未来"是一位流行巨星，但不是人类。

6 计算机还创作视觉艺术。艾哈迈德·埃尔加马尔博士创作了被称为AICAN的"人工智能艺术家"。最近，他在纽约市著名的当代艺术画廊举办了人工智能艺术家的首次个展。这次展览展示了几幅"无脸肖像"图像，这些图像类似于传统的人物肖像，但形式很抽象，而不是专注于面部特征。埃尔加马尔的职业生涯致力于探索人工智能的潜在创造力，他的艺术作品几乎没有人类参与。正如他所解释的，这是人工智能和人的合作，其中人工智能承担了大部分的工作。

7 这些例子让人不禁思考艺术的本质以及人们被艺术吸引的原因。艺术需要情感上的投资，而承诺的回报是人类共享的一部分体验。当我们欣赏电脑艺术时，我们担心的是：谁在电脑的另一端？是人类吗？如果不是，那它到底是不是艺术？

8 尽管如此，对于许多人来说，人工智能艺术是人类艺术，计算机只是另一种工具。"计算机艺术"和"绘画艺术"或"钢琴艺术"没什么不同。算法软件毕竟是人编写的，使用的是人发明的理论，人造的电脑，人写的规格说明，人收集的材料，在一家由

人类员工任职的公司里完成。计算机艺术是人类艺术 —— 一个子集而不是异类。机器只是一支画笔，握着画笔的仍然是人。

9   正如《纽约时报》的一篇评论所述：科学家预测了那么一个时间，届时几乎所有类型的绘画都会由计算机生成，而艺术家真正的"笔触"将不再在艺术作品的制作中发挥任何作用。当那一天到来的时候，艺术家的角色将是通过安排组中的点阵列形成预期的图案，来制定数字资料。之后，一切都将交给机器。艺术家可以从枯燥的技术要求和绘画创作的技巧中解放出来，只需"创造"。

10 然而，并不是所有人对计算机艺术都有热情。他们认为，考虑我们在多大程度上重视艺术创作中的技巧和能力也很重要。一般来说，越难创造的东西，对人类越有价值。这个价值不仅体现在人们聆听一部伟大的音乐作品或观赏一座辉煌的雕塑所体验到的快乐中，也体现在对一个人怎么可能创造出这样的作品的惊叹和难以置信中。如果只需按一下按钮就可以创造艺术，它还有任何价值吗？

11 当然，艺术是主观的，是什么赋予了一件作品艺术性这个问题有很多答案。无论人们对计算机生成的艺术作品的回应是正面还是负面，它无疑是合理艺术运动的产物。像任何伟大的艺术运动一样，计算机艺术通过打破过去的规则重新定义了什么是可能的。通过这些做法，计算机艺术迫使观众重新思考他们的认知，并重新考虑他们衡量艺术的标准。