科目：中英翻譯　　　　　系所組：跨文化研究所語言學碩士班語言科技組

1. One way to make AI smarter is to have it learn from its environment. Cars of the future, for example, will be better at reading street signs and avoiding pedestrians as they gain more experience. But hackers can exploit these systems with "adversarial attacks": By subtly and precisely modifying an image, say, you can fool an AI into misidentifying it. A stop sign with a few stickers on it might be seen as a speed limit sign, for example. The new study reveals AI can be fooled into not only seeing something it shouldn't, but also into behaving in a way it shouldn't. (20%)
   (https://www.sciencemag.org/news/2019/12/watch-ai-goalie-psych-out-its-opponent-most-hilarious-way)

2. Like most robots, social robots use artificial intelligence to decide how to act on information received through cameras and other sensors. The ability to respond in ways that seem lifelike has been informed by research into such issues as how perceptions form, what constitutes social and emotional intelligence, and how people can deduce others' thoughts and feelings. Advances in AI have enabled designers to translate such psychological and neuroscientific insights into algorithms that allow robots to recognize voices, faces and emotions; interpret speech and gestures; respond appropriately to complex verbal and nonverbal cues; make eye contact; speak conversationally; and adapt to people's needs by learning from feedback, rewards and criticisms. (20%)
   (https://www.scientificamerican.com/article/social-robots-play-nicely-with-others/)

3. A bit more on "multidimensional analysis," for the curious. The goal of this method is to model stylistic variation in a database of text. To do that, a computer program takes a large amount of text data and figures out which of dozens of grammatical structures—like types of verbs, questions, superlatives, and plenty more—are most common in each of the individual texts dataset. Finally, the analysis identifies patterns across groups of grammatical forms, which taken together can group the texts into different "dimensions." Looking at the dimensions that account for the biggest variation in grammar within the dataset can explain the differences in style over time. (20%)
   (https://qz.com/1153080/trump-tweets-analyzed-by-linguists-reveal-five-characteristics/)

4. 語言是人類藉以表情達意，相互溝通的工具。語言學是以科學的方法研究語言的學問，是研究語言的各個方面，像是音韻、構詞、語法、詞義等，而科學的方法是系統的方法，研究的內容是實證科學，而非抽象虛擬的內容。(20%)
   (http://www.airitibooks.com/pdfViewer/index.aspx?PublicationID=P20111110007&IsPreview=true&GoToPage=8)

5. 一周一次的語言課程，目標並非精進語言，而是透過課程介紹文化，讓小學生認識不同族群的生活方式和文化價值。透過選擇語言必修課程的當下，能了解有各種不同文化的人在這塊土地上生活。若以國家力量去證明新移民文化的重要，歧視就會大幅減少。(20%)
   (https://www.bbc.com/zhongwen/trad/chinese-news-48798125)

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