

TOEIC

Reading comprehension



How does climate influence a language?

You may not have noticed this before, but languages from warmer climates like Hawaiian, Tagalog and often flow easily, with lots of spacious, open vowel sounds. On the other hand, languages like Russian, Danish and and Norwegian are filled with consonants and narrow vowel sounds. A new study of over 600 languages suggests that the development of our languages is affected in large part by its climate, and its terrain. This kind of linguistic development has long been acknowledged in the animal world; birds tend to sing at a higher pitch in urban environments to help them be heard more easily, whereas forest-dwelling birds sing at a lower frequency. However, this new body of research carried out by University of California linguists Ian Maddieson and Christophe Coupe is the first to suggest that human language has followed a similar developmental pattern. They gathered data on 633 world languages, omitting widely spoken international languages such as English, Mandarin and Spanish because they are no longer limited to one climate. Using these language samples, they cross-analyzed them with ecological and climatic data to find out if indeed our languages are affected by our surroundings. A very clear pattern revealed itself: Languages in hotter, more tropical areas were often more full-bodied and melodious, and used much fewer consonants. In contrast, languages in colder, drier and more mountainous areas were much harsher in sound, and contained a lot more consonants.

- 1) What is the main idea of the text?
 - A. Birds' speech is affected by their environment.
 - B. Human languages are affected by their environment.
 - C. The Russian language uses a lot of consonants.
 - D. The English language is widely spoken.

- 2) According to the text, which of these is not true?
 - A. The Hawaiian language uses a lot of vowel sounds.
 - B. The Italian language flows easily and contains a lot of melody.
 - C. The Russian language is made up of many flowing vowel sounds.
 - D. The Danish language contains a lot of consonant sounds.

- 3) Which of the following is not mentioned in the text?
 - A. The reason why climate affects language.
 - B. The identities of the researchers.
 - C. The reason why English was not included in the study.
 - D. All of the above are mentioned.

The impact of 3D printing on healthcare and research

In the field of medicine, 3D printing has four major uses. It could be used to replace human organ transplants, accelerate surgical procedures, produce cheaper versions of required surgical tools, and produce custom-made prosthetics. 3D printing technology can be used to create artificial tissues by using bioprinters, which layer living cells. This way they are used for medical research connected to the creation of artificial human organs. Furthermore, 3D printing can produce patient-specific organs that help surgeons prepare for complex surgeries. By doing so, such operations can be performed faster, causing minimal trauma for the patients. Sterile surgical instruments, such as forceps and clamps can be produced using 3D printing technology. Finally, in order to improve the quality of life for people in need for prosthetic limbs, 3D printers are used to produce custom-made prosthetic pieces that fit patients perfectly, and are much cheaper than the serial production alternative.

1. How can 3D printing speed up medical operations?
 - A. By enabling surgeons practice operations beforehand.
 - B. By producing artificial limbs quickly.
 - C. By causing minimal trauma for the patients.
 - D. By creating surgical instruments.

2. What are the advantages of creating custom-made prosthetic pieces?
 - A. They have human tissue and the pricing is higher.
 - B. They are the right size and are less expensive.
 - C. They can be stored easily.
 - D. The process does not require sterile surgical tools.

3. How do bioprinters work?
 - A. By laying biomaterial on a tiny surface.
 - B. By following schematics made by biologists.
 - C. By using forceps and clamps.
 - D. By cutting artificial tissues.

4. What is the main idea of the text?
 - A. 3D printers are expensive tech gadgets.
 - B. 3D bioprinters are used to produce limbs.
 - C. Surgeons operate by using bioprinters.
 - D. 3D printers significantly improve patients' lives.

How does AI help us translate texts and learn languages?

Artificial Intelligence, or AI, has become a part of our families in a way. We have our personal assistants like Siri, our fridges tell us when we need restocking, and with the click of a button our heating can turn itself on before we even reach home. AI is even, in some ways, helping us speak other languages. But will AI ever replace our need for learning languages?

Before AI we had phrasebooks, and even electronic dictionaries to translate individual words. These evolved into electronic phrasebooks, making ordering food and drink abroad easier. Then the likes of Google Translate came along to make our translation even easier still. If you have the app on your phone you can even have it 'talk' to your bartender, bookstore worker, and so on, so you don't even have to try.

Now, we have a range of apps and gadgets offering 'instant translation' where you can speak in one language and have it immediately translated into another. The typical languages you will find these translations in are things like English, French, German, Mandarin, and Spanish, though some devices offer far more, with some even boasting 98 percent accuracy! You can even now Skype with instant translation, where your voice and text conversations can be instantly translated into more than 60 languages.

So what's the catch? If all these AI powered devices and technologies using the latest in machine learning are translating for us, why do we need to bother learning languages ourselves? Well, for a number of reasons. Where is the satisfaction in having a machine do something for us? How natural does a conversation really feel, if there is a 'middle man' of a device between us? But more than anything, a machine cannot perfectly mimic a human speaking a language.

Think about it. Not only do we use a range of colloquialisms, we also have personal words we use for objects that won't mean the same to everyone. Think about your TV remote control; is it a didge, zapper, or ujamawotsit for you? These are made up words; how can an AI translator cope? A machine cannot, as yet, understand the nuances of sarcasm, lying, and all sorts of other human ways. And an AI-powered translation device will never quite get how we use body language to emphasise our words!

If we also consider that there will be words and phrases that are offensive in some cultures that aren't in others, and that these will be harder for AI to understand, it is safe to say that AI translation tools will not make the need to learn languages obsolete. It is just a handy tool to help us get even better at the languages we choose to learn!

1) What are some of the most common languages AI powered devices use?

- A. English, Dutch, Portuguese, Russian, Mandarin
- B. English, French, German, Mandarin, and Spanish
- C. English, Mandarin, Spanish, Finnish, Afrikaans
- D. English, French, Cantonese, Swedish, Javanese

2) What is instant translation?

- A. AI technology that lets you buy things instantly when you see them online
- B. AI technology that lets you translate languages instantly while talking and messaging
- C. AI technology that makes your language choices for you so you don't have to think
- D. AI technology that thinks for you when you don't know what to say

3) What should you call your TV remote control?

- A. A didge
- B. A zapper
- C. An ujamawotsit
- D. Anything you want!

4) Why can't AI translation tools completely replace language learning?

- A. They can't be programmed to speak in accents
- B. They can't understand every colloquialism and human nuance
- C. They can't translate instantly
- D. They can't speak in a wide range of languages