A new technology to translate in real time

Ramesh SantanamAP

Researchers make advances in computerised human speech translation expertise

PITTSBURGH: Imagine this: You want to say something quietly in Spanish to a co-worker during a meeting, but speak no Spanish. So you simply mouth the words in English, without uttering a sound, and they pop up in Spanish on your colleague's computer screen.

Researchers acknowledge it sounds far-fetched, but they are working towards making it a reality. Their goal is to tear down language barriers and improve human speech translation by using computers.

On Thursday, the International Centre for Advanced Communication Technologies, run jointly by Carnegie Mellon University in Pittsburgh and the University of Karlsruhe in Germany, unveiled on-the-fly computerised human speech translation. The director of the centre, Alexander Waibel, delivered a lecture that was simultaneously translated from English to German and Spanish.

"We're living in an interesting time," he said. "We're increasingly globalising... We have multiple cultural groups that speak different languages. We want everyone working together but to maintain our individuality."

Mr. Waibel showed new ways of translating speeches beyond traditional headsets.

Researchers, for example, showed off goggles that delivered translations on a small screen and an array of small ultrasound speakers that delivered a narrow beam of audio in a foreign language to one person while others hear the speech in its original language.
Doctoral student Stan Jou demonstrated a device that Mr. Waibel described as sounding like science fiction. Jou mouthed words in Mandarin and 11 electrodes on his face and throat sensed what he said by the movement of his facial muscles and promptly translated it into English and Spanish. He and Mr. Waibel envision a day when people have implants in their faces and throats to be able to essentially speak foreign languages.

Printer friendly page
Send this article to Friends by E-Mail