New computer program helps Asian students understand regional accents

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Researchers at The University of Nottingham have developed a unique computer program that helps Asian students to improve their understanding of accented English speech in noisy environments.

The team of researchers from the Schools of Psychology, Education, and English, recognised that some Asian students find it difficult to understand the range of different English accents spoken.

They identified that some Asian students have particular difficulties with differentiating sounds at the end (e.g. rope versus robe) and start (e.g. tin versus thin) of spoken English words. This can make continuous speech difficult to follow, as misunderstanding just one word can potentially change the whole interpretation of a sentence. The difficulties are also magnified in non-optimal listening situations such as on a telephone or in places such as shopping centres, where there can be a lot of ambient noise.

To solve the problem, they developed a computerised Spoken English Discrimination (SED) training program which trains Chinese speakers how to detect differences in speech sounds in adverse conditions, such as accented speech or in situations where there are a number of sounds in the background.

Recognising the commercial potential for SED, the research team secured development money for the project, firstly through the European (ERDF) funded Innovation Fellowship and more recently via

the University's own Hermes Fellowship scheme. The funding awards have enabled the team to develop the product, assess the market demand and identify business collaboration opportunities.

The research team was led by Nicola Pitchford and Walter van Heuven from the School of Psychology. Commenting on the outcomes of the project, Nicola said: "Our findings have shown that SED training really does have a significant impact in enabling Asian students to differentiate between sounds.

"There has already been interest in the program from government organisations, through to a major Chinese mobile phone company who are interested in developing it into an educational phone app. In China alone, over 300 million people are involved in learning and teaching English, so we are very excited about the potential for the SED program."

The University is also looking to integrate SED training into existing English language teaching schemes, as it covers specific cultural elements, accents and different noisy backgrounds, issues which are normally not included in language programmes.

Walter van Heuven added: "We are very interested in talking to people who feel that they can work with us to find new markets and applications for our SED training program. The aim of our work has always been to help as many people as possible through this program, so if anyone has ideas about how they can help to develop and market the SED training program, we would love to hear from them."

Provided by University of Nottingham

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