**TMCnet**   **ARTICLES**

[November 02, 2005]

Not A Babel Fish, But Close

By TRACEY E. SCHELMETIC
Editorial Director, CUSTOMER INTER@CTION Solutions

The late science fiction humor writer Douglas Adams created a wonderful plot device to allow aliens to speak to and understand one another in his "Hitchhiker's Guide To The Galaxy" books. The Babel fish, inserted into one's ear, would "eat" brainwave radiation from every nearby source but its host. It would then "excrete" the meaning of the words spoken, regardless of language, into its host's brain, allowing all parties with Babel fish in their ears to understand one another.

GETTING RID OF YOUR OLD PHONE SYSTEM WAS EASY.
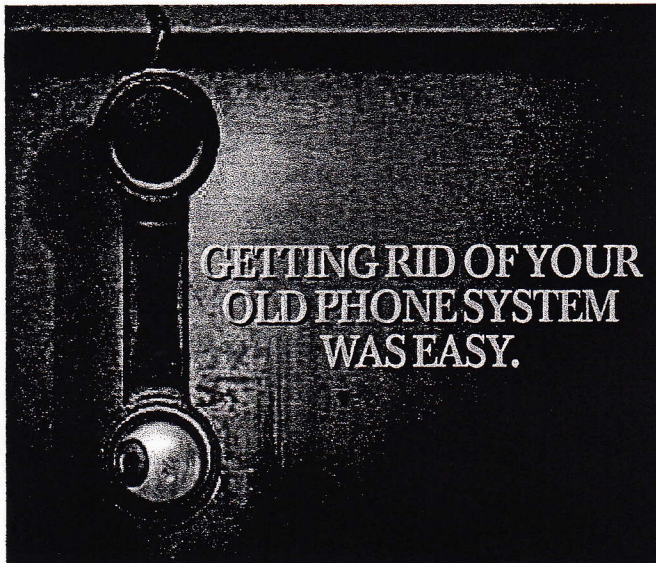
While we may still be a few years from the Babel fish, scientists at Carnegie Mellon University and the University of Karlsruhe in Germany last week debuted a device that comes close to the spirit of the Babel fish. The two organizations jointly launched a program called interACT, a research group dedicated to advanced language and communications technologies.

Their announcement certainly qualifies as "advanced."

Carnegie Mellon University computer science graduate student Stan Jou silently mouthed a phrase to an assembled audience in his native Mandarin Chinese: "Let me introduce our new prototype." But because Jou was wearing a device that tracked the movement of his facial and throat muscles through electrodes, his words were "read" in Mandarin by a computer, which then machine-translated the phrase into English and Spanish. The phrase was "spoken" in those languages by a computerized voice.

interACT program director and Carnegie Mellon University computer science professor Alex Waibel said he foresees a future in which a similar device

could be implanted into the mouth and throat of individuals who need to communicate regularly across multiple languages.

interACT has been simultaneously working on a host of language- and communication-related technologies, including those that will complement the translation device introduced last week. Existing machine translation is notoriously unreliable, as anyone who has played with it knows. The interACT team has tried new ways to improve machine translation using artificial intelligence to smooth out the frequently stilted results that come from word-for-word computer translation (not to mention the problem with homonyms, such as "karat" and "carrot".)

Very ironically, the only CMU/interACT-issued press release I could find about the event and the prototype is in German, and my two years of high school German limit me to speaking and understanding phrases such as, "Hans is searching for the bus station" and "Excuse me, how much does delicious-looking this sausage cost?"

Tracey Schelmetic is editorial director for CUSTOMER INTER@CTION Solutions. For more articles by Tracey Schelmetic, please visit the archives.

[Back To TMCnet.com's Homepage]