

Real-time language translators coming soon

By James Dean, *The Australian*, 8 February 2016

The bizarre yellow “Babel fish” imagined by Douglas Adams in *The Hitchhiker’s Guide to the Galaxy* could translate all manner of alien languages into English.

Such is the pace of technological innovation, our rather more mundane smartphones could soon be doing a similar job to Arthur Dent’s aquatic interpreter.

The universal translators of science fiction are destined to become widely available within five years, and the cultural implications could be huge.

Converse freely with the inhabitants of every country

Children would no longer need to learn languages. Backpackers would be able to converse freely with the inhabitants of every country they visited, immersing themselves in the local culture in a way that was not previously possible. There would be no such thing as a language barrier.

Leading technology companies are developing advanced translation systems, including Skype, the internet-based voice-calling service owned by Microsoft. Skype Translator allows two individuals to converse almost in real time in different languages.

Dave Coplin, the chief envisioning officer of Microsoft UK, said real-time translation would reach a pinnacle in the next five years. “At the moment we’re at the level of schoolboy French,” he said. “In five years, two people will be able to sit down, put a smartphone on a coffee table between them, and as they’re talking, the phone will translate their conversation seamlessly.

“This technology will fundamentally change my son’s cultural experiences. If he were to travel to South America, he could converse with people there as if he were fluent in their language. So, should I tell him not to bother learning languages at school?”

Speech recognition system

Skype Translator records what a speaker is saying and uses its speech recognition system to convert the voice file to text, which is then translated. The translated text is run through a robotic voice box and relayed to the listener. It works for English, French, German, Spanish, Italian, Portuguese and Mandarin. Skype says it plans to add new languages in the coming months.

Google Translate, Skype Translator and other real-time translation systems use “machine learning” to teach themselves how to become better interpreters. Machine learning is a process whereby a computer program is fed large amounts of data from which it is able to draw its own meanings.

Skype Translator began learning process

When Skype Translator was released as a prototype in 2014, it began this learning process, sucking up data from Skype conversations, translated web pages, videos and other online sources.

This helped it to better recognise accents, dialects and other linguistic idiosyncrasies before the full version of the software was released last month. Over the next five years, the same mechanics will hone the program's translation abilities even further.

Web translation systems of old, such as AltaVista's Babel Fish, which was released in 1997, would take each word and translate it directly, often leading to errors. Modern systems look for patterns.

Google has also developed software that deciphers foreign text instantly with a smartphone camera. The image recognition function was released last year on its Translate app.

The Times