

Computer aid ensures speedy, high-quality translations

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With 20 official languages and dozens more unofficial ones there is an immense and expanding need for translations in the European Union. Increasing translators' productivity is the goal of TransType2, an innovative computer-aided system that allows rapid and efficient high quality translations.

Due to end in February, the 36-month IST programme project has drawn on two of the most commonly used translation technologies developed to date: Computer-Assisted Translation (CAT), in which human translators work in unison with a computer; and Machine Translation (MT), in which the computer handles the entire process. While both techniques have advantages and drawbacks, TransType2 has “used the best of both worlds” says project manager José Esteban at Atos Origin in Spain.

“It’s curious that people have been trying to perform automatic translations since they first sought to put a man on the moon, well, we’ve been to the moon but we still haven’t designed a computer system that can translate texts as well as a human can,” notes Esteban.

The best of both worlds

With that in mind the project partners ensured that TransType2 would place human translators at the heart of the translation process as a guarantee of quality, while providing them with a highly effective tool to increase productivity. According to Esteban, TransType2 is one of the

most advanced computer-assisted translation systems developed to date, combining the quality-enhancing features of CAT with the productivity gains of MT.

The system works by providing translators with suggestions to complete sentences as they type which can be incorporated simply and rapidly, reducing the number of keystrokes needed to complete a translation. The suggestions are created based on statistical models of translated texts, used by the MT engines to predict the words and phrases that will come next.

“Most existing CAT systems, and the ones most widely commercialised today, are based on translation memories with the system recording previous sentences translated by the translator and offering them or similar combinations,” explains Esteban.

On the other hand, the automatic translations provided by MT systems have “generally not lived up to expectations,” the project manager notes. “Many translators find it harder and more time consuming to correct automatically translated text than to translate it manually from scratch,” he says.

Trial results could be better than expected

Based on the work of two previous projects TransType (Canadian government-funded) and EuTrans (European Commission-funded), TransType2 offers significant benefits over existing techniques. Trials currently underway with two translation agencies in Canada and Spain are showing results that could be better than the project partners first expected.

“We originally thought the system would increase productivity by between 15 or 20 per cent, but in some cases we’re seeing gains in excess

of 20 per cent and as high as 25 or 30 per cent,” Esteban says. “Once translators have familiarised themselves with the system the productivity increases start to become noticeable almost immediately.”

Though often wary of computer-based translation methods, the translators involved in the trials have reacted “very positively” to TransType2 principally because they see that it speeds and eases their work while maintaining them as the core actor in the translation process. Human translators can either accept the suggestions of the system or ignore them by simply continuing to type, thereby ensuring that the system does not introduce additional complications to their work.

The TransType2 prototype is currently designed to assist translations from English to French, Spanish and German and vice versa, although additional European languages can be incorporated relatively simply. “To add Chinese or Arabic, for example, would take more research but it is possible,” Esteban says.

TransType2 is adapted to the type of texts being translated, with the translation engines customisable to meet the needs of agencies that are dedicated to different types of translations, such as legal and political texts or scientific and technical ones.

“Literary documents are the most difficult to translate and where these systems have the greatest limitations given the wide range of variables in the language used in such texts,” Esteban says.

Even so, the need for scientific, technical, political and legal translations in Europe is vast, so much so that demand is outstripping the resources of translation agencies.

“We’re a small continent with multiple languages, the EU alone has 20 official languages spread across 25 countries and the need for quality

translations is increasing rapidly,” the project manager notes.

After the project ends, the seven partners are planning to continue to develop the system with a view to commercialising it either as an individual product or as a service.

Source: IST Results

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