Making online translation accurate, reliable and efficient

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Credit: AI-generated image (disclaimer)

European cooperation is based on our ability to understand each other. Given that there are presently 23 official EU languages, the availability of online tools to facilitate accurate translation is fundamentally important.

An EU-funded project has developed an innovative online tool that will enable web-content providers to automatically create publishing-quality translations. This tool has been calibrated to apply to specific professional fields, yet requires no specific training to use.

A number of online translation tools are currently available to the public. Some programmes are already used by many people worldwide, and improve the quality of their translations through machine learning. In other words, these systems use feedback to learn from their own mistakes. The disadvantage to this, however, is that explicit grammatical rules are the exception rather than the rule.

This is where the EU-funded MOLTO ('Multilingual on-line translation') project comes in. The project, which finished in early 2013, set out to develop a system with grammar rules already in place. The ultimate objective was to create a translation technique so accurate that people could produce texts using the translations directly, without fear of mistakes.

As a demonstration, the project aimed to produce a set of translated articles in the domain of cultural heritage on the Wikipedia website. An important point to note is that while existing online translation tools are often designed for consumers of information, MOLTO targeted producers of information. The quality therefore needed to be good enough so that, for instance, an e-commerce site could translate their web pages automatically without fear that the message would change.

This project is expected to have a major impact on how automated translation is viewed. The field is currently dominated by open-domain browsing-quality tools, which are not always accurate and not always trusted. Using existing tools, potential mistakes can arise where the system might have translated a price of EUR 100 into, say 100 Swedish Crowns (which in fact equals around EUR 10). While the customer

might realise that there has been a mistake, this could prove costly if company does not notice the error.

On the other hand, domain-specific, high-quality translation can be both expensive and cumbersome. As a result of MOLTO, it should now be possible for a producer of web documents to automatically generate them in many languages. The MOLTO project makes it easier to provide high-quality translation across a number of domains.

Indeed, potential areas - in addition to MOLTO's case studies - cover distant learning, electronic commerce, encyclopaedia articles, contracts, manuals, and user interfaces. Other areas include, for example, the translation of patent descriptions, along with descriptions of cultural heritage and museum objects. Another important area of development has been the translation of mathematical teaching material.

The MOLTO project has succeeded in ensuring that content producers will be able to use this innovative technology without necessarily being fluent in the language in which, say, the patent description was written, or without being a computer expert.

This means that, in the future, information producers will be able to freely download this tool and translate texts into several languages simultaneously. This technique has the potential to be applied to a wide range of web documents, within sufficiently well-specified domains and clear semantics. Ultimately, it could revolutionise automatic online translation, to the benefit of citizens everywhere.

More information: For more information, please visit: www.molto-project.eu/

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