

## European Day of Languages, September 26

### Developments in Machine Translation Technology

#### support European Integration



Recent days have witnessed thousands of refugees arriving in Europe. Among many important challenges facing the welcoming and integration, one of the most urgent tasks is teaching them the languages of the host countries. On the European Day of Languages, the scale of this task should remind us, that the challenge of European integration has not yet been truly addressed: language barriers remain the most stubborn borders in Europe, ones that hinder commerce, communication, and true integration of citizens.

The online machine translation systems can be the key input to overcome the language barriers. Nowadays, computer programs such as well-known online machine translation systems use so-called machine-learning methods on large amounts of multilingual data to learn statistical probabilities about how selected words and sequences of words are to be translated. These systems can then provide an approximate translation, the quality of which varies greatly depending on the input.

Language is more than just arbitrary sequences of words. Rather, it has grammatical structures and complexity. In this context, the European scientific research project QTLeap, funded by the European Commission and coordinated by the University of Lisbon, through the Department of Informatics, Faculty of Science, is currently developing a hybrid translation technology that enriches the statistical systems with language skills and semantic knowledge in order to achieve better results in automatic translation.

The first QTLeap prototypes that have been developed are promising: "the research results of the project demonstrate that the current machine translation technology supported by these prototypes allow a significant cost reduction of 40-60%, both with regard to translation costs and the need for human intervention", says Professor António Branco, from Department of Informatics, Faculty of Science, University of Lisbon.

QTLeap project is part of the European Commission's efforts to develop the Digital Single Market. This year, the European Commission took another decisive step ahead, launching the Automated Translation platform of Connecting Europe Facility (CEF.AT). The CEF.AT platform will facilitate multilingual communication and exchange of documents and other linguistic content across Europe among national public administrations as well as among these administrations and EU citizens and businesses operating freely without language barriers.

The European Day of Languages as an initiative of the Council of Europe has been celebrated since 2001 on 26 September, to promote the construction of a European Multilingual Information Society.

For contacts and more information about QTLeap project:

<http://qt leap.eu>

For more information about the CEF.AT platform:

<https://ec.europa.eu/digital-agenda/en/automated-translation>

About the European Day of Languages:

<http://edl.ecml.at>