



The QTLeap project achieves a milestone in innovative machine translation technology. It successfully introduced the complex network of lexical semantics relations and meanings in the translation process.

QTLeap - Quality Translation by Deep Language Engineering Approaches is a collaborative project funded by the European Commission, undertaken by a consortium of eight partners: Bulgarian Academy of Sciences, Charles University in Prague, German Research Center for Artificial Intelligence, Humboldt University in Berlin, University of the Basque Country, University of Groningen, University of Lisbon and the Portuguese SME Higher Functions.

The QTLeap project investigates and develops an innovative methodology for Machine Translation (MT) that explores new solutions, using deep language engineering approaches to achieve higher quality translations.

In November 2015, the project successfully reached an internal milestone with the motto “getting it lexically linked and resolved”. The second set of MT pilot systems that has just been finished by the consortium relies on the addition of *lexical-semantic* information into the MT systems for all project languages: Portuguese, German, Czech, Bulgarian, Spanish, Basque, Dutch and English.

While it has long been argued that the semantic information from large web resources such as Wikipedia and also more structured derivatives (“linked data”) should help MT, it has now been actually proven that this type of information has a positive effect on MT quality.

Research in QTLeap follows a new, user-oriented approach. The pilot MT systems aim at providing more coherent and focused feedback in an IT help desk scenario that serves as reality check within the project. To this end, the MT engines take into account concept information, ensured by word senses (“meanings”) and synonymic sets, as well as the text coherence, ensured by co-reference chains. The combined evaluation showed improvement on the previous pilot engines. The results provided valuable insights for the preparation of the last set of MT pilots to be built by the partners.

Research results up to now show that with the current machine translation technology, the need for human intervention in the call center scenario has been significantly reduced and thus the time and maintenance costs – significantly optimized.

For more information and contact details please visit:

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