



## **Advances in deep machine translation foster chatbot technology for the digital single market**

**From websites to apps and now from apps to intelligent chatbots that reach the whole digital world across linguistic barriers. The QTLeap research project obtained a breakthrough in leveraging the next interaction channel for the global digital market with deep machine translation.**

A rapidly spreading wisdom is that with the advent of personal computers, every organization needed to have a presence in the digital world by means of a website; later on with the advent of smartphones, this evolved into every organization putting much effort in using apps as their privileged channel to reach out the digital world; as the results of research in Artificial Intelligence are maturing, the next disruptive step is for the organizations to focus on chatbots to interact with their users, by means of dialogues in the different languages of the users.

The QTLeap project investigated and developed an innovative methodology for Machine Translation (MT) to support the upcoming generation of global interaction technology across linguistic barriers.

Results indicate that with the MT technology developed in the project, the reduction in language specific costs of porting a fully reliable human backed up chatbot system to a new market with a new idiom, at day one of its operation, is up to 20%, depending on the idiom.

Project results also indicate that the deep MT solutions developed in the project advanced the state of the art of MT technology in reaching up to 85% of probability of delivering a better translation than the current mainstream technology.

The research pursued is based on deep language processing approaches. The deeper the processing of utterances the less language specific differences remain between the representation of the meaning of a given utterance and the meaning representation of its translation.

QTLep—Quality Translation by Deep Language Engineering Approaches is a collaborative scientific research project that is funded by the European Commission and 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 SME Higher Functions.

**For more information and contact details please visit:**

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