Beyond the Keyboard and the Mouse: Voice Recognition and Multimodal Interaction in Translation

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In recent years, the translation industry has increasingly shown an interest in voice recognition (VR) technology to dictate translations, post-edit machine translation output and issue basic commands to computers. VR technology gives a computer system the ability to recognize and process human voice and speech. Developed and used for several decades, voice-enabled systems and devices are proven to be better than keyboard-based interfaces for tasks for which full natural language communication is useful. Now, although it was implicit in the earliest efforts in natural language processing that VR was expected to completely replace – rather than enhance – other input modes, it was soon proposed that, for many tasks, voice input achieved better performance in combination with other input modes. Today, the combination of several input modes in parallel in a coordinated matter is called *multimodal interaction (MI)*. This emerging form of human-computer interaction has the potential to become one of the most efficient, cost-effective and ergonomic working strategies for translation professionals, in the near future. Examples of commercially available multimodal devices are tablets, smartphones and other touch- and voice-enabled devices such as touchscreen computers. These interfaces represent a major and innovative departure from traditional graphical user interfaces, or WIMP (windows, icons, menus and pointer) interfaces, characterized primarily by the use of the keyboard and the mouse as main input modes.

In this presentation, we will provide a historical overview of VR technology and MI. Then, we will present our current doctoral work exploring MI for translation purposes, considering the unparalleled robustness of commercial voice-enabled MIs and their anticipated and documented advantages in other domains and areas of application. Lastly, we will enumerate several areas for future research.

Bio note

Julián Zapata holds an Honours BA in English-French-Spanish Translation and an MA in Translation Studies from the University of Ottawa, where he is currently pursuing his research at the doctoral level. He is also a professor of translation from English into Spanish, as well as a research assistant and teaching assistant in the fields of documentation, lexicography and translation technology at the University of Ottawa. In addition, he has been invited to collaborate in translation process research projects by the Centre for Research and Innovation in Translation and Translaion Technology (CRITT), located at the Copenhagen Business School, in Copenhagen, Danemark. Mr. Zapata has also been involved with the Language Technologies Research Center (LTRC) since 2011, first as a blogger-moderator on the LinguiTech.ca virtual community, and is currently associated to the Centre as junior researcher. His areas of interest include, in particular, speech technologies, translation dictation, human-computer interaction and multimodal interaction.

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