transLectures: Transcription and Translation of Video Lectures

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Summary

Online repositories of video lectures are a rapidly growing feature of the Internet. One example is *VideoLectures.NET*, a free and open access educational video repository with more than 17,000 video objects at present count. Transcription and translation of these video lectures is needed to make them accessible to a wider audience. However, as with many other repositories, most of the lectures on this site are neither transcribed nor translated.

The aim of *trans**Lectures*** is to develop innovative, cost-effective solutions for producing accurate transcriptions and translations for *VideoLectures.NET* and, beyond this site, for other Matterhorn-related repositories. Our starting hypothesis is that the gap that current automatic speech recognition (ASR) and machine translation (MT) technologies must bridge in order to achieve acceptable results for the kind of audiovisual collections being considered in the project is relatively small, and can be closed by pursuing the following three objectives:

1. *Improvement of transcription and translation quality by massive adaptation.*
2. *Improvement of transcription and translation quality by intelligent interaction.*
3. *Integration into Matterhorn to enable real-life evaluation.*

The main result of *trans**Lectures*** will be a set of cost-effective tools for producing accurate transcriptions and translations for *VideoLectures.NET* and other Matterhorn-related repositories. These tools will be tested on *VideoLectures.NET*, as well as on a smaller repository of Spanish video lectures, *poliMedia*. For transcription, we are developing systems in English and Slovenian for *VideoLectures.NET* (which account for over 90% of all videos) and Spanish for *poliMedia*. For translation, we are working with the language pairs: EN⇆ES, EN⇆SL, EN→FR and EN→DE.

Given a successful outcome, we expect that the techniques being developed will be adopted by educational repositories around the world, enabling them to overcome language barriers, reach wider audiences and improve overall user experience.