

BabelDr: A Web Platform for Rapid Construction of Phrasebook-Style Medical Speech Translation Applications

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Abstract. BabelDr (<http://babeldr.unige.ch/>) is a joint project of Geneva's Faculty of Translation and Interpretation (FTI) and University Hospitals (HUG), that has been active since July 2015. The goal is to develop methods that allow rapid prototyping of medium-vocabulary web-enabled medical speech translators, with particular emphasis on languages spoken by victims of the current European refugee crisis. A demonstrator system freely available on the project site translates spoken French medical examination questions into four languages.

BabelDr (<http://babeldr.unige.ch/>) is a joint project of Geneva University's Faculty of Translation and Interpretation (FTI/TIM) and Geneva University Hospital (HUG), active since July 2015 under funding from "La fondation privée des HUG". The goal is to develop methods that allow rapid prototyping of medium-vocabulary web-enabled medical speech translators, with particular emphasis on languages spoken by migrants. The application can be characterised as a flexible speech-enabled phrasebook (Rayner et al 2015). Semantic coverage consists of a prespecified set of utterance-types (around 2000 in the current version), but users can use a wide variety of surface forms when speaking to the system. Each utterance-type is associated with a canonical source-language version, which is rendered into the target languages by suitably qualified translation experts. The central design goals are to ensure that a) translations are completely reliable, b) the bulk of the work can be performed directly by translation experts, with minimal or no involvement from language engineers, c) speech recognition performance is excellent for in-coverage data and adequate even for new users, d) new versions of the live app can be quickly deployed over the web, enabling rapid updating of coverage in response to requests from medical staff, e) new target languages can easily be added, enabling flexibility in the face of changing patient demographics. A demonstrator system freely accessible at <http://babeldr.unige.ch/demos-and-resources/> translates French into Spanish, Italian, Arabic and Tigrinya.

References

- Rayner, M. et al. (2015). Helping Domain Experts Build Phrasal Speech Translation Systems. Proceedings of the Workshop on Future and Emerging Trends in Language Technology, Sevilla, Spain, pages 1-12.