



# SPEECH TEXT PRINT INTERPRETING: PROCESS, COMPREHENSIBILITY, AND TECHNOLOGY

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Print interpreting means the translation of spoken language and any accompanying significant audible information into written text simultaneously with speech. The text is typed on a computer and displayed on a screen, on which the emerging text is visible to the reader. Print interpreting is needed as a communication aid for people with a hearing disability in order to give them access to speech. Since they have acquired the language in a hearing speech culture, and since they usually still speak it, they need an interpretation which is as close as possible to the original speech. This interpretation must also give an impression of the speaker and the linguistic variation. The demands of simultaneity (requiring a high production rate) and verbatim transcription present print interpreting with many challenges. Another important challenge is to transfer all the relevant auditory information (including non-language sounds, such as laughter) into a visible form which is understandable to the hearing impaired.

The project will investigate the process of print interpreting and the comprehensibil-

ity of the interpretation, and it will develop new technology and methods for analyzing and supporting print interpreting. In a narrow sense the process means the real-time conversion act and the changes in the message; in a broader sense it covers the whole communicative event, including the activity of interpreting and the actions of the participants and their interaction. The comprehensibility of the interpretation will be examined in terms of readability and coherence. The main research methods are the textual analysis of the interpretation, multimodal analysis of the process, and eye movement analysis of reading the interpretation. The research problems will be studied in interdisciplinary collaboration combining approaches from Linguistics, Translation Studies (especially Interpreting Studies), and Computer Sciences.

The practical aim of the study is to develop new software solutions to improve the accessibility of communication. Results on studies of the reading process can provide valuable information to develop better ways of rendering the text in order to improve its

comprehensibility. In addition, the project will contribute to a deeper understanding of the relationship between writing and speaking, verbal and non-verbal communication, and it will produce new information about their interchangeability in various media.



## KEY PUBLICATIONS TO DATE:

- Sharmin S, Špakov O, Rähä K-J, Jakobsen, A L. *Effects of time pressure and text complexity on translators' fixations. In Proc. Eye Tracking Research and Applications Symposium (ETRA 2008), 67-70*
- Špakov, O. & Rähä, K.-J. *KiEV: A tool for visualization of reading and writing processes in translation of text. In Proc. Eye Tracking Research and Applications Symposium (ETRA 2008), 107-110*
- Tanhuamäki M. *Kirjoitustulkkauksen laadun arviointi laatukriteerien avulla. [Quality assessment in print interpreting with quality criteria]. Master's Thesis, University of Tampere, 2008*
- Tiittula L. *Schriftdolmetschen – Mündlichkeit im schriftlichen Gewand. In: A Man of Measure. Festschrift in Honour of Fred Karlsson. A special supplement to SKY Journal of Linguistics, vol 19, 481-488, 2006*
- Virkkunen R. *The source text in opera surtitles. META Vol. 49:1, 89-98, 2004*

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