



International Conference on Computational Processing of Portuguese Language
Applications of Portuguese Speech and Language Technologies

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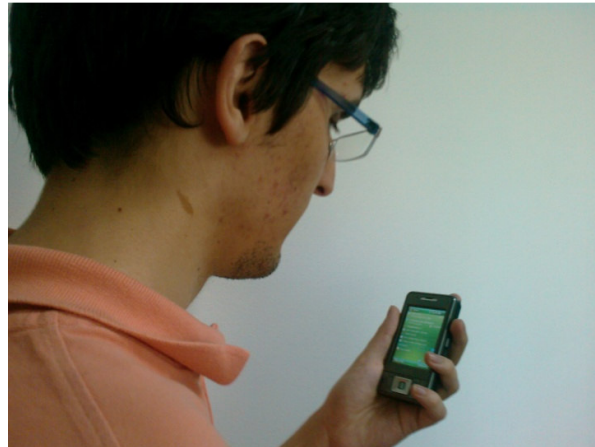
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A DICTATION SYSTEM FOR A PDA

João Miranda and João P. Neto

L2F - Spoken Language Systems Laboratory, INESC ID Lisboa
Instituto Superior Técnico / Technical University of Lisbon
VOICEINTERACTION
R. Alves Redol, 9, 1000-029 Lisboa, Portugal
<http://www.l2f.inesc-id.pt/>
Joao.Miranda@l2f.inesc-id.pt and Joao.Netto@inesc-id.pt



We will present a dictation system for the European Portuguese, which has as main goal to simplify the interaction with small portable devices by providing a speech interface. The system that will be demonstrated – shown in the picture in a radiology task – is targeted at low-resource systems such as PDAs and mobile devices.

This system enables a user to speak to either the device's integrated microphone or a Bluetooth microphone and to see the transcription of their utterance in the device's screen, enhancing the user's productivity in dictation tasks, when compared to the device's often awkward input interfaces.

The system will be presented both as a distributed system, where the PDA will perform only part of the processing of the incoming speech and send the rest to be processed by a PC, and as a fully embedded system, in which case the PDA will execute all the processing.

The two configurations that will be demonstrated are provided for extra flexibility, for both have their merits and drawbacks. On the one hand, the first requires that a reliable network with sufficient bandwidth and small enough latency be available to the device while the second does not. But on the other hand, the first configuration enables the use of tasks of unlimited size, in terms of the number of words that can be recognized by the system, and achieves lower word error rates, since most of their processing is done in the PC, while the second only permits the use of smaller tasks (around 5,000 words in Real Time), since the PDA's scarce resources are the limiting factor.