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Proceedings of the workshop on Speech Processing for Safety Critical Translation and Pervasive Applications

Workshop chairs:
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Introduction

Two ideas currently gaining popularity in spoken dialogue construction are safety critical translation and pervasive speech-enabled applications. Safety critical, and in particular, medical, applications have emerged as one of the most popular domains for speech translation. At the first workshop on medical speech translation, held at HLT 2006, a measure of consensus emerged on at least some points. The key issue that differentiates the medical domain from most other application areas for speech translation is its safety-critical nature; systems can realistically be field- deployed now or in the very near future; the basic communication model should be collaborative, and allow the client users to play an active role; and medical systems are often most useful when deployed on mobile devices. This last point offers a natural link to pervasive computing applications, where spoken language technologies provide an effective and natural interface for mobile devices in situations where traditional modes of communication are less appropriate.

However, there is so far little agreement on many central questions, including choices of architectures, component technologies, and evaluation methodologies. In this workshop we hope that people interested in these types of application will meet, exchange ideas and demo live systems.

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Conference Programme

Saturday, August 23, 2008

9:30–9:40 Opening Remarks

Session 1: Architectures for Speech Translation

09:40–10:05 *Mitigation of Data Sparsity in Classifier-Based Translation*
Emil Ettelaie, Panayiotis G. Georgiou and Shrikanth S. Narayanan

10:05–10:30 *Speech Translation with Grammatical Framework*
Björn Bringert

10:30–11:00 Break

Session 2: Pervasive Speech Applications

11:00–11:25 *An Integrated Dialog Simulation Technique for Evaluating Spoken Dialog Systems*
Sangkeun Jung, Cheongjae Lee, Kyungduk Kim and Gary Geunbae Lee

11:25–11:50 *Economical Global Access to a VoiceXML Gateway Using Open Source Technologies*
Kulwinder Singh and Dong-Won Park

11:50–12:15 *Interoperability and Knowledge Representation in Distributed Health and Fitness Companion Dialogue System*
Jaakko Hakulinen and Markku Turunen

12:30–14:00 Lunch

Saturday, August 23, 2008 (continued)

Session 3: Speech Translation Demos

14:00–15:30 *The 2008 MedSLT System*
Manny Rayner, Pierrette Bouillon, Jane Brotanek, Glenn Flores, Sonia Halimi, Beth Ann Hockey, Hitoshi Isahara, Kyoko Kanzaki, Elisabeth Kron, Yukie Nakao, Marianne Santaholma, Marianne Starlander and Nikos Tsourakis

14:00–15:30 *Language Understanding in Maryland Virtual Patient*
Sergei Nirenburg, Stephen Beale, Marjorie McShane, Bruce Jarrell and George Fantry

14:00–15:30 *Rapid Portability among Domains in an Interactive Spoken Language Translation System*
Mark Seligman and Mike Dillinger

15:30–16:00 Break

Session 4: Speech Translation Systems

16:00–16:25 *Speech Translation for Triage of Emergency Phonecalls in Minority Languages*
Udhyakumar Nallasamy, Alan Black, Tanja Schultz, Robert Frederking and Jerry Weltman

16:25–16:50 *Speech to Speech Translation for Nurse Patient Interaction*
Farzad Ehsani, Jim Kimzey, Elaine Zuber, Demitrios Master and Karen Sudre

Session 5: A Shared Task for Medical Speech Translation?

16:50–17:05 *A Small-Vocabulary Shared Task for Medical Speech Translation*
Manny Rayner, Pierrette Bouillon, Glenn Flores, Farzad Ehsani, Marianne Starlander, Beth Ann Hockey, Jane Brotanek and Lukas Biewald

17:05–close Panel Discussion