Technical Programme and Abstracts
SLaTE

As Chair of the ISCA Special Interest group, SLaTE, I would like to welcome you to the SLaTE 2009 Workshop. The SLaTE SIG is interested in all research that concerns the use of language technologies for education applications, especially those for language learning. There are many domains that are covered by SLaTE, such as pronunciation error detection and dialogue games, as you will see over the next few days.

The first meeting on this topic was organized by the researchers at KTH and held in Marhollmen Sweden in 1998. That very successful meeting was followed by meetings in Aberdeen and in Venice. SLaTE itself was created by a group of interested researchers at the 2006 Interspeech conference in Pittsburgh, USA. And the first SLaTE SIG workshop was held in Farmington PA, USA in 2007. The present meeting at Wroxhall Abbey, UK carries on the tradition of assembling to hear high quality research, to attend demonstrations of software and to have interesting discussions with colleagues from around the world.

Several of the presentations from the 2007 meeting have resulted in the publication of a special issue of Speech Communication (October 2009). This issue had the highest number of proposed papers of any issue in Speech Communication history.

I would like to especially thank Martin Russell for organizing this wonderful workshop! It is well-planned and is full of interesting events, papers and demos. I hope you all enjoy this workshop and find many new ideas to take home with you.

Maxine Eskenazi
Chair, ISCA SIG SLaTE

SLaTE 2009

Welcome to the ISCA SLaTE 2009 workshop. The venue for the workshop is Wroxall Abbey Estate, in Warwickshire, England. This was chosen for a number of reasons: it’s small, and SLaTE 2009 will be the only major event while we are there, it is unique and steeped in history, it is remote but relatively accessible, and it is close to a number of interesting places, including Warwick and Stratford-upon-Avon (visits to both of these are included in the social programme). It is certainly not a modern hotel. All of the guest rooms are different with their own unique characters, and the conference facilities are more intimate than you would expect in a more modern venue. I hope you like it!

Forty five papers were submitted to SLaTE 2009. This is a significant increase compared with SLaTE 2007 and indicates that our area is growing. Each submission was evaluated by at least three reviewers. Overall the quality was judged to be very high, and we accepted 37 papers. Of these, 19 will be presented as talks in the 5 oral sessions, and 18 as posters in 3 poster sessions. We also have 14 demonstrations in 2 sessions. This has resulted in a busy programme, and it has been necessary to include evening sessions on the Thursday and Friday, between the social events and dinner.

Where possible the papers have been grouped according to themes, however, due to the relatively small number of papers and the travel arrangements of some of their presenters it has not always been possible to adhere tightly to these themes.

I would like to thank the SLaTE committee for their support, and the reviewers for reading and assessing their allocated papers.

I hope that you enjoy the workshop!

Martin Russell
Organiser, SLaTE 2009
SLaTE Committee

Abeer Alwan       UCLA
Jared Bernstein   Ordinate Corp.
Rodolfo Delmonte University of Venice
Maxine Eskenazi   Carnegie Mellon University
Björn Granström  KTH
Valerie Hazan      University College, London
Diane Litman      University of Pittsburgh
Dominic Massaro   University of California – Santa Cruz
Nobuaki Minematsu University of Tokyo
Patti Price       PPrice.com
Martin Russell    University of Birmingham
Stephanie Seneff  MIT
Helmer Strik      Radboud University

SLaTE 2009 Scientific Review Committee

The organisers would like to thank the following individuals who took part in the review of papers submitted to SLaTE 2009.

Abeer Alwan       Gregory Aist
Anton Batliner    Kay Berkling
Jared Bernstein   Alan Black
Lei Chen          Catia Cucchiarini
Rodolfo Delmonte Ryan Downey
Maxine Eskenazi   Horacio Franco
Björn Granström  Diego Giuliani
Valerie Hazan      W Lewis Johnson
Diane Litman      Nuno Mamede
Dominic Massaro   Nobuaki Minematsu
Mari Ostendorf    Patti Price
Martin Russell    Stephanie Seneff
Helmer Strik      Louis ten Bosch
Joseph Tepperman  Isabel Trancoso
Hugo Van hamme
## SLaTE 2009 - Outline Technical and Social Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Thursday 3rd</th>
<th>Friday 4th</th>
<th>Saturday 5th</th>
<th>Sunday 6th</th>
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<tbody>
<tr>
<td>7.30-8.30am</td>
<td>Breakfast</td>
<td>Break Fast [plus SLaTE Committee meeting]</td>
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<tr>
<td>9.00-10.30am</td>
<td>Oral session 3: Creation &amp; Assessment Of Content For SLaTE</td>
<td>Poster session 3: Topics in SLaTE (1)</td>
<td>Coach departs for Brighton 11.30am</td>
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<td>10.30-11.00am</td>
<td><strong>Coffee</strong></td>
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<td>11.00-12.45pm</td>
<td>Poster session 2: Pronunciation Training &amp; Assessment (2)</td>
<td>Demo session 2</td>
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<td><strong>Lunch</strong></td>
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<tr>
<td>12.45-1.45pm</td>
<td>Welcome Oral session 1: Virtual Tutors &amp; Games</td>
<td>Oral session 4: Pronunciation Training &amp; Assessment (3)</td>
<td>Oral session 5: Topics in SLaTE (2)</td>
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<td>1.45-3.00pm</td>
<td><strong>Tea</strong> (4.10 – 4.25pm)</td>
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<td>3.00-3.30pm</td>
<td>Poster session 1: Language Proficiency Assessment</td>
<td><strong>Tea</strong> (3.30-4.00pm)</td>
<td>SLaTE general assembly</td>
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<td>3.30-4.00pm</td>
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<td>4.00-5.30pm</td>
<td>Excursion to Warwick Castle</td>
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<td>5.30-6.30pm</td>
<td>Guided tours of Wroxall Abbey Estate</td>
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<tr>
<td>6.30-8.00pm</td>
<td>Oral session 2: Pronunciation Training &amp; Assessment (1)</td>
<td>Demo session 1</td>
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<td>8.00pm</td>
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Social Programme

Wroxall Abbey Estate History Talk and Tours - Thursday 3rd September, 5.30 – 6.30pm
Tony Carr, one of the ministers responsible for Wroxall Abbey Estate Chapel, will give a presentation on the history of Wroxall Abbey Estate. The talk will take place in the Chapel and will be followed by group tours of the estate.

Visit to Warwick Castle – Friday 4th September, 3.30 – 6.30pm
An executive coach and English speaking guide would meet the guests at Wroxall Abbey and depart for a visit to England’s finest Medieval Castle
This breathtaking monument rises majestically above the banks of the River Avon. First fortified by William the Conqueror in 1068, it spans nine centuries of war and peace, turmoil and calm, upheaval and progress. Down through the years, the Castle has echoed to the sound of feast days, of lavish entertainments, of high society dinners. The guests will enjoy a guided tour which includes the magnificent Great Hall and State Apartments, with Madame Tussaud's "Royal Weekend House Party" and the Kingmaker attraction.

Visit to Stratford-on-Avon – Saturday 5th September, 4.00 – 8.00pm
An executive coach and English speaking guide would meet the guests at Wroxall Abbey and depart for a guided tour of Stratford-upon-Avon where they would be met by two English speaking guides for a walking tour of the town centre.
A small, old Elizabethan town on the gently-flowing River Avon, Stratford is famous as the birthplace of the Immortal Bard, William Shakespeare, born there in 1564. The charming town centre boasts an extensive array of 16th and 17th century buildings, with rows of half-timbered houses, including Shakespeare’s Birthplace on Henley Street. Stratford is also well known as a stage for Shakespeare’s works and is home to the Royal Shakespeare Company.
The experienced Guides will point out the many places of interest, including the five Shakespeare Houses, the three Royal Shakespeare Company theatres, the Church where the Bard is buried, Shakespeare’s School, Harvard House, the Guild Chapel and other historic buildings of interest.
The guides would leave the guests after the tour and the coach would return them to Wroxall Abbey at 20:00.
THURSDAY 3RD SEPTEMBER 2009

Thu 3/9/09 14:30 Welcome
Martin Russell

Thu 3/9/09 14:40 – 16:10 Oral 1
VIRTUAL TUTORS AND GAMES
Chair: Mari Ostendorf
14:40 Chair’s Introduction
15:30 [O1.3] Preben Wik, Rebecca Hincks, Julia Hirschberg, “Responses to Ville: A virtual language teacher for Swedish” [PDF]

16:10 – 16:25 Tea and Coffee

Thu 3/9/09 16:25 – 17:50 Poster 1
LANGUAGE PROFICIENCY ASSESSMENT
Chair: Helmer Strik
16:00 – 16:20 Introduction to poster session 1
16:20 – 17:30 Posters

Thu 3/9/09 17:50 – 18:40
Talk on the history of Wroxall Abbey Estate

Thu 3/9/09 18:40 – 20:00 Oral 2
PRONUNCIATION TRAINING & ASSESSMENT (1)
Chair: Björn Granström
19:00 [O2.2] Alissa M. Harrison, Wai-kit Lo, Xiao-jun Qian, Helen Meng,
“Implementation of an Extended Recognition Network for Mispronunciation Detection and Diagnosis in Computer-Assisted Pronunciation Training” [PDF]


Thu 3/9/09 20:00 Dinner at Wroxall Abbey

FRIDAY 4TH SEPTEMBER 2009

Fri 4/9/09 09:00 – 10:30 Oral 3

CREATION & ASSESSMENT OF CONTENT FOR SLaTE

Chair: Martin Russell
09:00 Chair’s introduction
09:30 [O3.2] Julie Medero, Mari Ostendorf, “Analysis of Vocabulary Difficulty Using Wiktionary” [PDF]
10:10 [O3.4] Luís Marujo, José Lopes, Nuno Mamede, Isabel Trancoso, Juan Pino, Maxine Eskenazi, Jorge Baptista, Céu Viana, “Porting REAP to European Portuguese” [PDF]

10:30-11:00 Tea and Coffee

Fri 4/9/09 11:00 – 12:45 Poster 2

PRONUNCIATION TRAINING & ASSESSMENT (2)

Chair: Isabel Trancoso
11:00 – 11:20 Introduction to poster session 2
11:20 – 13:00 Posters


[P2.2] Hansjörg Mixdorff, Daniel Külls, Hussein Hussein, Gong Shu, Hu Guoping, Wei Si, “Towards a Computer-aided Pronunciation Training System for German Learners of Mandarin” [PDF]

[P2.3] William R. Rodríguez, Eduardo Lleida, “Formant Estimation in Children’s Speech and its application for a Spanish Speech Therapy Tool” [PDF]

[P2.4] Natalia Cylwik, Agnieszka Wagner, Grażyna Demenko, “The EURONOUNCE corpus of non-native Polish for ASR-based Pronunciation Tutoring System” [PDF]

[P2.5] Hiroyuki Obari, Hiroaki Kojima, Machi Okumura, Masahiro Yoshikawa, Shuichi Itahashi, “Investigating the Effectiveness of Prontest to Train English Proficiency” [PDF]


Fri 4/9/09 14:00 – 15:30 Oral 4

PRONUNCIATION TRAINING & ASSESSMENT (3)

Chair: Maxine Eskenazi

Fri 4/9/09 14:00 – 15:30 Oral 4

PRONUNCIATION TRAINING & ASSESSMENT (3)

Chair: Maxine Eskenazi
14:00  Chair’s introduction

14:10  [O4.1] Lei Chen, “Audio Quality Issue for Automatic Speech Assessment” [PDF]

14:30  [O4.2] Shizhen Wang, Patti Price, Yi-Hui Lee and Abeer Alwan, “Measuring Children’s Phonemic Awareness through Blending Tasks” [PDF]


15:30 – 15:45 Tea and Coffee

Fri 4/9/09  15:45 – 18:30  Excursion to Warwick Castle

15:45 Coach leaves for Warwick Castle

16:00 – 18:00  Tours of Warwick Castle

18:30 return to Wroxall Abbey

Fri 4/9/09  18:30 – 20:00  Demo 1

[D1.4] “Spoken dialog systems for learning foreign language communication skills”, Andre Valente and W. Lewis Johnson, Alelo Inc


[D1.6] “COMUNICA: MULTILEVEL TOOLS FOR SPANISH CALL”, Oscar Saz, W.-Ricardo Rodríguez, Eduardo Lleida, Carlos Vaquero, Communications Technology Group (GTC), Aragón Institute for Engineering Research (I3A), University of Zaragoza, Zaragoza, Spain


20:00  Dinner at Wroxall Abbey

SATURDAY 5TH SEPTEMBER 2009

Sat 5/9/09  09:00 – 10:30  Poster 3

TOPICS IN SLaTE (1)

Chair:  Nuno Mamende

09:00 – 09:20  Introduction to poster session 3

09:20 – 10:30  Posters


[P3.2] Rebecca Hincks, Jens Edlund, “Using speech technology to promote increased pitch variation in oral presentations” [PDF]

[P3.3] Zöe Handley, Mike Sharples, Dave Moore, “Training Novel Phonemic
Contrasts: A Comparison of Identification and Oddity Discrimination Training” [PDF]


Liu Liu, Jack Mostow, and Gregory Aist, “Automated Generation of Example Contexts for Helping Children Learn Vocabulary” [PDF]

Khe Chai Sim, “Improving Phone Verification Using State-level Posterior Features and Support Vector Machine for Automatic Mispronunciation Detection” [PDF]

10:30-11:00 Tea and Coffee

Sat 5/9/09 11:00 – 12:45 Demo 2

“Structure-based pronunciation assessment”, Nobuaki Minematsu and Masayuki Suzuki

“Voice Race and Voice Scatter: Online Educational Games for Collecting Orthographically-Labeled Speech Data”, Alexander Gruenstein, Ian McGraw, and Andrew Sutherland

“REAP.PT, a tutoring system for teaching Portuguese”, L. Marujo, J. Lopes, N. Mamede, I. Trancoso, J. Pino, M. Eskenazi, J. Baptista, C. Viana

“Virtual Chinese Tutor (VCT) - A Chinese Language Pronunciation Learning Software”, Yow-Bang Wang¹,², Hsin-Min Wang¹, Lin-Shan Lee¹,², ¹ Institute of Information Science, Academia Sinica, ² Department of Electrical Engineering, National Taiwan University, Taipei, Taiwan, R.O.C.

“Automatic assessment of non-native prosody”, Florian Hönig, Anton Batliner, Karl Weilhammer, Elmar Nöth

“A Spoken Dialog System for Learners of English”, Karl Weilhammer, Catharine Oertel, Robin Siegemund, Ricardo Sá, Anton Batliner, Florian Hönig und Elmar Nöth

“CLIMB LEVEL 4 – teaching English for aviation safety”, Maxine Eskenazi, Gary Pelton, Carnegie Speech Company

Sat 5/9/09 12.45 – 13.45 Lunch

Sat 5/9/09 13:45 – 15:00 Oral 5

TOPICS IN SLaTE (2)

Chair: Stephanie Seneff

13:45 Chair’s Introduction


14:20 [O5.2] Gregory Aist and Jack Mostow, “Predictable and Educational Spoken Dialogues: Pilot Results” [PDF]

14:40 [O5.3] John Ingram, Hansjörg Mixdorff and Nahyun Kwon, “Voice morphing and the manipulation of intra-speaker and cross-speaker phonetic variation to create foreign accent continua: A perceptual study” [PDF]

Sat 5/9/09 15:00

SLaTE General Assembly

15:30 – 16:00 Tea and Coffee

Sat 5/9/09 16:00

Walking tour of Stratford-upon-Avon

20.00 Return to Wroxall Abbey