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Proceedings of the Fourth Workshop on Innovative Use of NLP for Building Educational Applications

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Introduction

NLP researchers are now building educational applications across a number of areas, including automated evaluation of student writing and speaking, rich grammatical error detection with an increasing focus on English language learning, tools to support student reading, and intelligent tutoring.

This workshop is the fourth in a series, specifically related to "Building NLP Applications for Education", that began at NAACL/HLT (2003), and continued at ACL 2005 (Ann Arbor), ACL-HLT 2008 (Columbus), and now, at NAACL-HLT 2009 (Boulder). Research in this area continues to grow, and there is ever-increasing interest which was evidenced this year by the fact that we had the largest number of submissions.

For this workshop, we received 25 submissions and accepted 12 papers. All of these papers are published in these proceedings. Each paper was reviewed by a least two members of the Program Committee.

The papers in this workshop fall under several main themes:

- **Assessing Speech -** Two papers deal with assessing spoken language [Zechner et al] and [Cheng et al];
- **Grammar Error Detection -** The majority of papers this year deal with grammar error detection for native and non-native English speakers [Liu et al], [Tsao and Wible], [Leacock et al], [Hermet and Alain], and [Foster and Andersen].
- **Reading Support -** Two papers support vocabulary building [Pino and Eskenazi] and [Landauer et al], and another paper discusses a literacy aid for Brazilian Portuguese [Candido et al].
- **Intelligent Tutoring -** Two papers discuss issues concerning intelligent tutoring systems [Boyer et al] and [Kersey et al].

We wish to thank everyone who showed interest and submitted a paper, all of the authors for their contributions, the members of the Program Committee for their thoughtful reviews, and everyone who attended this workshop. All of these factors contribute to a truly rich and successful event!

Joel Tetreault, Educational Testing Service
Jill Burstein, Educational Testing Service
Claudia Leacock, Butler Hill Group

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Table of Contents

Automated Assessment of Spoken Modern Standard Arabic
Jian Cheng, Jared Bernstein, Ulrike Pado and Masanori Suzuki 1

Automatic Scoring of Children's Read-Aloud Text Passages and Word Lists
Klaus Zechner, John Sabatini and Lei Chen 10

Inferring Tutorial Dialogue Structure with Hidden Markov Modeling
Kristy Elizabeth Boyer, Eun Young Ha, Robert Phillips, Michael Wallis, Mladen Vouk and James Lester 19

A New Yardstick and Tool for Personalized Vocabulary Building
Thomas Landauer, Kirill Kireyev and Charles Panaccione 27

Supporting the Adaptation of Texts for Poor Literacy Readers: a Text Simplification Editor for Brazilian Portuguese
Arnaldo Candido, Erick Maziero, Lucia Specia, Caroline Gasperin, Thiago Pardo and Sandra Aluisio 34

An Application of Latent Semantic Analysis to Word Sense Discrimination for Words with Related and Unrelated Meanings
Juan Pino and Maxine Eskenazi 43

Automated Suggestions for Miscollocations
Anne Li-E Liu, David Wible and Nai-Lung Tsao 47

A Method for Unsupervised Broad-Coverage Lexical Error Detection and Correction
Nai-Lung Tsao and David Wible 51

KSC-PaL: A Peer Learning Agent that Encourages Students to take the Initiative
Cynthia Kersey, Barbara Di Eugenio, Pamela Jordan and Sandra Katz 55

Using First and Second Language Models to Correct Preposition Errors in Second Language Authoring
Matthieu Hermet and Désilets Alain 64

User Input and Interactions on Microsoft Research ESL Assistant
Claudia Leacock, Michael Gamon and Chris Brockett 73

GenERRate: Generating Errors for Use in Grammatical Error Detection
Jennifer Foster and Oistein Andersen 82

Conference Program

Friday, June 5, 2009

9:00–9:15 Opening Remarks

9:15–9:40 *Automated Assessment of Spoken Modern Standard Arabic*
Jian Cheng, Jared Bernstein, Ulrike Pado and Masanori Suzuki

9:40–10:05 *Automatic Scoring of Children's Read-Aloud Text Passages and Word Lists*
Klaus Zechner, John Sabatini and Lei Chen

10:05–10:30 *Inferring Tutorial Dialogue Structure with Hidden Markov Modeling*
Kristy Elizabeth Boyer, Eun Young Ha, Robert Phillips, Michael Wallis, Mladen Vouk and James Lester

10:30–11:00 Break

11:00–11:25 *A New Yardstick and Tool for Personalized Vocabulary Building*
Thomas Landauer, Kirill Kireyev and Charles Panaccione

11:25–11:50 *Supporting the Adaptation of Texts for Poor Literacy Readers: a Text Simplification Editor for Brazilian Portuguese*
Arnaldo Candido, Erick Maziero, Lucia Specia, Caroline Gasperin, Thiago Pardo and Sandra Aluisio

11:50–12:15 *An Application of Latent Semantic Analysis to Word Sense Discrimination for Words with Related and Unrelated Meanings*
Juan Pino and Maxine Eskenazi

12:15–2:15 Lunch

2:15–2:40 *Automated Suggestions for Miscollocations*
Anne Li-E Liu, David Wible and Nai-Lung Tsao

2:40–3:05 *A Method for Unsupervised Broad-Coverage Lexical Error Detection and Correction*
Nai-Lung Tsao and David Wible

3:05–3:30 *KSC-PaL: A Peer Learning Agent that Encourages Students to take the Initiative*
Cynthia Kersey, Barbara Di Eugenio, Pamela Jordan and Sandra Katz

3:30–4:00 Break

Friday, June 5, 2009 (continued)

4:00–4:25 *Using First and Second Language Models to Correct Preposition Errors in Second Language Authoring*
Matthieu Hermet and Désilets Alain

4:25–4:50 *User Input and Interactions on Microsoft Research ESL Assistant*
Claudia Leacock, Michael Gamon and Chris Brockett

4:50–5:15 *GenERRate: Generating Errors for Use in Grammatical Error Detection*
Jennifer Foster and Oistein Andersen