

ACL-08: HLT

**Third Workshop on
Innovative Use of NLP
for Building Educational
Applications**

Proceedings of the Workshop

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Introduction

The use of NLP in educational applications is becoming increasingly widespread and sophisticated. Such applications are intended to fulfil a variety of needs, from automated scoring of essays and short-answer responses, to grammatical error detection, to assisting learners in the development of their writing, reading, and speaking skills, in both their native and non-native languages.

The rapid growth of this area of research is evidenced by the number of topic-specific workshops in recent years. This workshop is the next in a series which began at ACL 1997 and continued on with HTL/NAACL 2003 and ACL 2005. Since 1997, there have also been other related meetings such as the InSTIL/ICALL Symposium at COLING 2004, and most recently the CALICO 2008 workshop entitled *Automatic Analysis of Learner Language: Bridging Foreign Language Teaching Needs and NLP Possibilities*.

In keeping with previous workshops, our aim is to bring together the ever-growing community of researchers from both academic institutions and industry, and foster communication on issues regarding the broad spectrum of instructional settings, from K-12 to university level to EFL/ESL and professional contexts. In this endeavor, we are assisted by the wide variety of topics and languages covered by the papers presented.

For this workshop, we received 18 submissions, and accepted 13 papers: 8 were accepted as long presentations (20 minutes) and 5 as short presentations (15 minutes). All accepted papers are published in these proceedings as full-length papers of up to 9 pages. Each paper was reviewed by two members of the Program Committee.

The papers in this workshop fall under several main themes:

- **Second Language Learner Systems** Several papers detail work on systems aimed at helping students learn. [Dickinson et al.] describe an ICALL system for learners of Russian; the *King Alfred* system [Michaud] provides a translation environment to assist learners of Anglo-Saxon English; [Pendar et al.]'s approach to the identification of discourse moves aims to improve students' scientific writing; and [Hidaka et al.] present a corpus-based approach to help Czech students in their study of syntax. [Nagata et al.] present work on detecting romanized Japanese words in written learner English. Finally, [Bernhard et al.] describe a method for answering a student's question via paraphrasing.
- **Automatic Assessment** There are also several papers on automatic assessment, including scoring the semantic content of student responses [Bailey et al.] [Nielsen et al.] and automatically scoring speech fluency [Zechner et al.].
- **Readability** Another concern is the readability of materials presented to students, and how to identify materials at appropriate difficulty levels for the intended audience. The issue of retrieval is discussed by [Heilman et al. (b)], while the prediction of reading difficulty is the topic of [Miltakaki et al.] and [Heilman et al. (a)]
- **Intelligent Tutoring** [Boyer et al.] discuss ways to improve feedback given to students in a tutorial dialogue setting.

We wish to thank all of the authors for participating, and the members of the Program Committee for reviewing the submissions on a very tight schedule.

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Table of Contents

<i>Developing Online ICALL Resources for Russian</i> Markus Dickinson and Joshua Herring	1
<i>Classification Errors in a Domain-Independent Assessment System</i> Rodney D. Nielsen, Wayne Ward and James H. Martin	10
<i>King Alfred: A Translation Environment for Learners of Anglo-Saxon English</i> Lisa N. Michaud	19
<i>Recognizing Noisy Romanized Japanese Words in Learner English</i> Ryo Nagata, Jun-ichi Kakegawa, Hiromi Sugimoto and Yukiko Yabuta.....	27
<i>An Annotated Corpus Outside Its Original Context: A Corpus-Based Exercise Book</i> Barbora Hladka and Ondrej Kucera	36
<i>Answering Learners' Questions by Retrieving Question Paraphrases from Social Q&A Sites</i> Delphine Bernhard and Iryna Gurevych	44
<i>Learner Characteristics and Feedback in Tutorial Dialogue</i> Kristy Boyer, Robert Phillips, Michael Wallis, Mladen Vouk and James Lester	53
<i>Automatic Identification of Discourse Moves in Scientific Article Introductions</i> Nick Pendar and Elena Cotos	62
<i>An Analysis of Statistical Models and Features for Reading Difficulty Prediction</i> Michael Heilman, Kevyn Collins-Thompson and Maxine Eskenazi	71
<i>Retrieval of Reading Materials for Vocabulary and Reading Practice</i> Michael Heilman, Le Zhao, Juan Pino and Maxine Eskenazi	80
<i>Real Time Web Text Classification and Analysis of Reading Difficulty</i> Eleni Miltsakaki and Audrey Troutt	89
<i>Towards Automatic Scoring of a Test of Spoken Language with Heterogeneous Task Types</i> Klaus Zechner and Xiaoming Xi	98
<i>Diagnosing Meaning Errors in Short Answers to Reading Comprehension Questions</i> Stacey Bailey and Detmar Meurers	107

Workshop Program

Thursday, June 19, 2008

- 9:00–9:15 Opening Remarks
- 9:15–9:40 *Developing Online ICALL Resources for Russian*
Markus Dickinson and Joshua Herring
- 9:40–10:05 *Classification Errors in a Domain-Independent Assessment System*
Rodney D. Nielsen, Wayne Ward and James H. Martin
- 10:05–10:30 *King Alfred: A Translation Environment for Learners of Anglo-Saxon English*
Lisa N. Michaud
- 10:30–11:00 Break
- 11:00–11:20 *Recognizing Noisy Romanized Japanese Words in Learner English*
Ryo Nagata, Jun-ichi Kakegawa, Hiromi Sugimoto and Yukiko Yabuta
- 11:20–11:40 *An Annotated Corpus Outside Its Original Context: A Corpus-Based Exercise Book*
Barbora Hladka and Ondrej Kucera
- 11:40–12:00 *Answering Learners' Questions by Retrieving Question Paraphrases from Social Q&A Sites*
Delphine Bernhard and Iryna Gurevych
- 12:00–12:20 *Learner Characteristics and Feedback in Tutorial Dialogue*
Kristy Boyer, Robert Phillips, Michael Wallis, Mladen Vouk and James Lester
- 12:20–1:55 Lunch
- 1:55–2:20 *Automatic Identification of Discourse Moves in Scientific Article Introductions*
Nick Pendar and Elena Cotos
- 2:20–2:45 *An Analysis of Statistical Models and Features for Reading Difficulty Prediction*
Michael Heilman, Kevyn Collins-Thompson and Maxine Eskenazi
- 2:45–3:10 *Retrieval of Reading Materials for Vocabulary and Reading Practice*
Michael Heilman, Le Zhao, Juan Pino and Maxine Eskenazi

Thursday, June 19, 2008 (continued)

3:10–3:30 *Real Time Web Text Classification and Analysis of Reading Difficulty*
Eleni Miltsakaki and Audrey Troutt

3:30–4:00 Break

4:00–4:25 *Towards Automatic Scoring of a Test of Spoken Language with Heterogeneous Task Types*
Klaus Zechner and Xiaoming Xi

4:25–4:50 *Diagnosing Meaning Errors in Short Answers to Reading Comprehension Questions*
Stacey Bailey and Detmar Meurers