ACL-05

The Second Workshop on Building Educational Applications Using NLP

Proceedings of the Workshop

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Association for Computational Linguistics (ACL)
75 Paterson Street, Suite 9
New Brunswick, NJ 08901
USA
Tel: +1-732-342-9100
Fax: +1-732-342-9339
acl@aclweb.org

Introduction

The two main research areas in educational applications, automated evaluation of students free-responses and intelligent tutoring systems (ITS), have developed fairly autonomously within the NLP community. We made progress toward bridging this gap in the First Workshop on Building Educational Applications Using NLP in 2003, where researchers in a wide variety of educational applications met in Edmonton to share their work and ideas - both in the speech- and text-based communities. Papers dealt with automated evaluation of essay-length texts and classification of brief responses that students enter into a tutoring system. Other research that was reported included exploring the value of using grammar checking within a tutoring system, comparing speech- and text-based tutoring systems, and automatically generating multiple-choice questions.

There continues to be a significant and fast-growing body of research toward developing educational applications that incorporate NLP. This has become apparent as, since the First Workshop in 2003, subsequent workshops have been held by scientists working in this field (InSTIL/ICALL 2004 Symposium on Computer Assisted Learning and the eLearning International Workshop, COLING 2004).

The themes in the 2005 workshop fall into four broad categories. Several papers explore the automated assessment of written text - a field that is fast becoming mainstream. These papers describe methods to score essay-length responses, evaluate content-based short answer responses, and identify plagiarized material. Other papers look at methods for generating assessment questions automatically. A third major focus is in teaching language skills - both speech and text-based. Finally, two papers evaluate tools that NLP software developers can use to build educational applications.

We hope that this workshop will continue to facilitate communication between researchers who work on all types of instructional applications, for K-12, undergraduate, graduate school and professional or industrial settings. Our goal is to continue to expose the NLP research community to these technologies with the hope that they may see novel opportunities for use of their tools in educational applications.

We wish to thank the members of the Program Committee, listed below, for reviewing the large number of workshop submissions on a very tight schedule. We owe special thanks to Slava Andreyev for production work on these proceedings (also on a tight schedule!)

Jill Burstein
Claudia Leacock

Organizers:

Jill Burstein, Educational Testing Service
Claudia Leacock, Pearson Knowledge Technologies

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Conference Program

Wednesday, June 29, 2005

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10:30–11:00 Break

12:30–02:00 Lunch

03:30–04:00 Break

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Chao-Lin Liu, Chun-Hung Wang, Zhao-Ming Gao and Shang-Ming Huang

09:30–10:00 *Automatic Short Answer Marking*
Stephen G Pulman and Jana Z Sukkarieh

Short Students Talks

10:00–10:10 *A real-time multiple-choice question generation for language testing – a preliminary study–*
Ayako Hoshino and Nakagawa Hiroshi

10:10–10:20 *Predicting Learning in Tutoring with the Landscape Model of Memory*
Arthur Ward and Diane Litman

10:20–10:30 *Towards Intelligent Search Assistance for Inquiry-Based Learning*
Weijian Xuan and Meilan Zhang

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Session 2

11:00–11:30 *Automatic Essay Grading with Probabilistic Latent Semantic Analysis*
Tuomo Kakkonen, Niko Myller, Jari Timonen and Erkki Sutinen

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Ozlem Uzuner, Boris Katz and Thade Nahnsen

12:00–12:30 *Towards a Prototyping Tool for Behavior Oriented Authoring of Conversational Agents for Educational Applications*
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Session 3

02:00–02:30 *Direkt Profil: A System for Evaluating Texts of Second Language Learners of French Based on Developmental Sequences*
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Session 4

04:00–04:30 *A Software Tool for Teaching Reading Based on Text-to-Speech Letter-to-Phoneme Rules*
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04:30–05:00 *Situational language training for hotel receptionists*
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