HLT-NAACL 2006

Interactive Question Answering

Proceedings of the Workshop

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Introduction

Welcome to the Interactive Question Answering Workshop at HLT-NAACL 2006.

In moving from factoid Question Answering (QA) to answering complex questions, it has become apparent that insufficient attention has been paid to the user's role in the process, other than as a source of one-shot factual questions or at best a sequence of related questions. Users both want to, and can do, a lot more: With respect to answers, users can usually disambiguate between a range of possible factoid answers and/or navigate information clusters in an answer space; In the QA process itself, users want to ask a wider range of question types, and respond to the system's answer in more ways than with another factual question. In short, real users demand real-time interactive question and answer capabilities, with coherent targeted answers presented in context for easy inspection. Repeat users will require user models that treat information already provided as background to novel information that is now available.

Such developments move the paradigm of QA away from single question, single answer modalities, toward interactive QA, where the system may retain memory of the QA process, and where users develop their understanding of a situation through an interactive QA dialogue. Dialogue systems already allow users to interact with simple, structured data such as train or flight timetables, using a dialogue component based on variations of finite-state models. These models make intensive use of the structure of the domain to constrain the range of possible interactions.

The goal of this two day workshop is to explore the area of dialogue as applied to the QA scenario, to extend current technology beyond factoid QA. We would like the workshop to produce some tangible output, which at the very least will be a blueprint for future development of the field. Each of the keynote speakers will add something to the discussion about the future direction (or past developments) of interactive QA. During these presentations, and the presentations of the participants, notes will be taken about research priorities, existing systems, methodologies and principles. At the end of the workshop, there will be a discussion section to produce a roadmap for the future development of interactive QA systems. This roadmap will be circulated to participants after the event.

Given the busy timetable of workshops and conferences around the world, we had an impresive number of submissions for IQA, allowing us to select only those papers which we felt made a real contribution towards the goal of this workshop. We hope you all enjoy the event and are able to actively participate in the discussions, and ultimately the creation of the roadmap for future research and development of Interactive Question Answering systems.

Nick Webb, June 2006.

Organizers:

Roberto Basili, University of Rome, Tor Vergata (ITALY)
Oliver Lemon, University of Edinburgh (UK)
Nick Webb, SUNY, Albany (USA) - Chair
Bonnie Webber, University of Edinburgh, (UK)

Program Committee:

John Donelan, AQUAINT Technical Steering Committee (USA)
Sanda Harabagiu, Language Computer Corporation (USA)
Ryuichiro Higashinaka, NTT (Japan)
Udo Kruschwitz, University of Essex (UK)
Steven Maiorano, AQUAINT Technical Steering Committee (USA)
Joe Polifroni, University of Sheffield (UK)
Sharon Small, SUNY, Albany (USA)
David Traum, ICT (USA)

Invited Speakers:

Jim Hieronymous, NASA
Tanya Korelsky, NSF
Heather McCallum-Bayliss, DTO
Tomek Strzalkowski, SUNY, Albany
Bill Woods, SUN Microsystems

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Conference Program

Thursday, June 8, 2006

9:00–9:30 Welcome, Introduction by Nick Webb

9:30–10:30 Invited Talk by Heather McCallum-Bayliss

10:30–11:00 Break

11:00–11:30 *Contextual Phenomena and Thematic Relations in Database QA Dialogues: Results from a Wizard-of-Oz Experiment*
Núria Bertomeu, Hans Uszkoreit, Anette Frank, Hans-Ulrich Krieger and Brigitte Jörg

11:30–12:00 *WoZ Simulation of Interactive Question Answering*
Tsuneaki Kato, Jun'ichi Fukumoto, Fumito Masui and Noriko Kando

12:00–12:30 Summary and Discussion: User's Role in QA: What Can They Do, What Should We Model? (Chair: Nick Webb)

12:30–14:00 Lunch

14:00–15:00 Invited Talk by Jim Hieronymous

15:00–15:30 *Modeling Reference Interviews as a Basis for Improving Automatic QA Systems*
Nancy J. McCracken, Anne R. Diekema, Grant Ingersoll, Sarah C. Harwell, Eileen E. Allen, Ozgur Yilmazel and Elizabeth D. Liddy

15:30–16:00 Break

16:00–16:30 *Enhanced Interactive Question-Answering with Conditional Random Fields*
Andrew Hickl and Sanda Harabagiu

16:30–17:00 Summary and Discussion: Domain Modeling: How Much Can We/Should We Capture? (Chair: TBA)

Friday, June 9, 2006

9:00–9:05 Welcome, Day One Summary by Nick Webb

9:05–9:30 Invited Talk byTanya Korelsky

9:30–10:30 Invited Talk by Bill Woods

10:30–11:00 Break

11:00–11:30 *A Data Driven Approach to Relevancy Recognition for Contextual Question Answering*
Fan Yang, Junlan Feng and Giuseppe Di Fabbrizio

11:30–12:00 *Answering Questions of Information Access Dialogue (IAD) Task Using Ellipsis Handling of Follow-Up Questions*
Jun'ichi Fukumoto

12:00–12:30 Summary and Discussion: IQA vs. IR (and Relevance Feedback) vs. Dialogue Systems (Chair: Tomek Strzalkowski)

12:30–14:00 Lunch

14:00–15:00 Invited Talk by Tomek Strzalkowski

15:00–15:30 *User-Centered Evaluation of Interactive Question Answering Systems*
Diane Kelly, Paul Kantor, Emile Morse, Jean Scholtz and Ying Sun

15:30–16:00 Break

16:00–16:30 Summary and Discussion: Evaluation of IQA, Subjective vs. Objective? (Chair: TBA)

16:30–17:30 Roadmap Construction (Chair: Nick Webb)