Welcome to the first Workshop on Human-Computer Question Answering (HCQA)! Question answering is a central task in natural language processing (NLP). Unlike other NLP tasks, it also is easy for non-experts to understand when question answering systems perform well (or fail). The goal of this workshop is to bring the community together to discuss the state of the art of question answering and interactively compete with top human trivia masters.

This workshop highlights question answering on the real-world task of quiz bowl, a trivia game in which competitors are asked to identify entities such as battles, novels, and scientific terms. In quiz bowl, a moderator reads a paragraph-long question to two teams, and players are permitted to interrupt the moderator (or “buzz in”) with a guess if they feel confident. This setting is especially interesting because acquiring more features (clues) comes with an added cost (the other team may buzz in before you). While computerized question answering systems have previously had success against humans, this workshop will be the first to pit different systems against each other and then have that winner face off against a top human team.

Question answering is a task interesting to both academia and industry. This workshop brings people from both sides to discuss recent progress in QA. We will have a presentation from the IBM Watson team talking about their new Watson Discovery Advisor and the challenges of QA in the industrial setting. Peter Clark will talk about new types of question answering problems that he and his team are solving at the Allen Institute for AI. We also have Zhengdong Lu, Jason Weston, and Richard Socher talking about recent neural network approaches to QA.

This year we have nine papers covering a variety of approaches to QA, including neural networks, crowdsourcing, knowledge graph search, and paraphrasing. Besides common QA tasks such as machine comprehension, (open-domain) factoid QA, we are also excited to see new topics on error analysis of QA systems by crowdsourcing and alignment between text description and paintings for art questions.

At the end of the workshop, we will have a dual computer-human tournament to test entrants’ question answering systems against each other and against the top human trivia masters. Enjoy the match!

Finally, we invite you to enjoy this volume and we are looking forward to seeing you in San Diego!

Mohit Iyyer, He He, Jordan Boyd-Graber and Hal Daumé III
Organizers:
Mohit Iyyer, University of Maryland, College Park
He He, University of Maryland, College Park
Jordan Boyd-Graber, University of Colorado, Boulder
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Mohit Bansal, Toyota Technological Institute at Chicago
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Edward Grefenstette, Google DeepMind
Sanda Harabagiu, University of Texas at Dallas
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Mrinmaya Sachan, Carnegie Mellon University
Tomek Strzalkowski, SUNY Albany
Richard Socher, Salesforce
Christina Unger, Bielefeld University
Yi Yang, Georgia Institute of Technology
Wen-Tau Yih, Microsoft Research
Luke Zettlemoyer, University of Washington

Invited Speakers:
Ray Mooney, University of Texas at Austin
Jason Weston, Facebook AI Research
Peter Clark, Allen Institute for AI
Zhengdong Lu, Noah’s Ark Lab, Huawei Technologies
Richard Socher, Salesforce
Eunsol Choi, University of Washington
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Conference Program

Thursday, June 16, 2016

9:00–9:15  Welcome

Invited Talks I

9:15–9:50  Invited Talk by Ray Mooney

9:50–10:25 Invited Talk by Jason Weston

10:25–10:40 Coffee Break

Talks by Authors of Accepted Papers

10:40-11:00 Watson Discovery Advisor: Question-answering in an industrial setting
Charley Beller, Graham Katz, Allen Ginsberg, Chris Phipps, Sean Bethard, Paul Chase, Elinna Shek and Kristen Summers

11:00–11:20 Crowdsourcing for (almost) Real-time Question Answering
Denis Savenkov, Scott Weitzner and Eugene Agichtein

11:20–11:40 Attention-Based Convolutional Neural Network for Machine Comprehension
Wenpeng Yin, Sebastian Ebert and Hinrich Schütze

11:40–12:00 Invited Talk by Eunsol Choi

12:00–1:15 Lunch
Thursday, June 16, 2016 (continued)

Invited Talks II

13:15–13:50 Invited Talk by Peter Clark

13:50–14:25 Invited Talk by Zhengdong Lu

14:25–15:00 Invited Talk by Richard Socher

Poster Session

15:00–15:15 Coffee Break

15:15–16:00 Open-domain Factoid Question Answering via Knowledge Graph Search
Ahmad Aghaebrahimian

15:15–16:00 Neural Enquirer: Learning to Query Tables in Natural Language
Pengcheng Yin, Zhengdong Lu, Hang Li and kao Ben

15:15–16:00 Neural Generative Question Answering
Jun Yin, Xin Jiang, Zhengdong Lu, Lifeng Shang, Hang Li and Xiaoming Li

15:15–16:00 "A Distorted Skull Lies in the Bottom Center..." Identifying Paintings from Text Descriptions
Anupam Guha, Mohit Iyyer and Jordan Boyd-Graber

15:15–16:00 Using Confusion Graphs to Understand Classifier Error
Davis Yoshida and Jordan Boyd-Graber

15:15–16:00 Paraphrase for Open Question Answering: New Dataset and Methods
Ying Xu, Pascual Martínez-Gómez, Yusuke Miyao and Randy Goebel
Thursday, June 16, 2016 (continued)

Exhibition Match

16:00–17:15  *Best Shared Task System vs. Human Quiz Bowl Team*