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Message from the Organizers

Our workshop brings together researchers studying machine reading for question answering (MRQA). MRQA has emerged as an important testbed for evaluating how computer systems understand natural language, as well as a crucial technology for applications such as search engines and dialog systems. In recent years, MRQA systems have become much more accurate, and are even capable of retrieving evidence documents on the fly or answering without retrieved documents. Datasets and models have been developed to target many different aspects of the problem, including multi-hop reasoning, numerical reasoning, or commonsense reasoning.

Despite this progress, there are still many important desiderata that most MRQA systems do not adequately consider: multilinguality and interpretability. In the 3rd MRQA workshop, we therefore focus on these two emerging and crucial aspects of question answering models.

Systems today are predominantly evaluated by measuring accuracy on English benchmarks, yet an ideal question answering system would support a diverse range of languages. With recent developments of multilingual question answering datasets, it is timely to study how MRQA models can be designed to support typologically diverse languages.

Many systems produce correct answers for the wrong reason and are unable to explain their predictions. Given the opaque nature of modern large-scale pre-trained neural models, it is important to study how MRQA systems can offer users a way to trust (or not trust) an otherwise black-box model’s predictions, as well as offer practitioners ways to diagnose critical modeling issues or dataset biases.

As in past years, we sought paper submissions of previously unpublished work. To reflect our focus on our two themes, we had separate tracks for multilinguality and interpretability-related papers, as well as a general research track. Across these three tracks, we received 21 total paper submissions after withdrawals – 14 for the general research track, 5 for the multilingual track, and 2 for the interpretability track. While the submission counts have decreased from last year, we found the average quality of submitted papers to be higher than previous years. After discussion among the organizers, we have accepted a total of 16 papers and awarded one best paper and two honorable mention papers. We also have accepted 23 non-archival submissions that were accepted at other related conferences (such as papers accepted at the main conference/findings of ACL, EMNLP, SIGIR) to be presented at our workshop. Our final program therefore includes 39 papers, of which 16 papers are included in these proceedings.

We are excited to host six stellar invited speakers. In the morning session, Reut Tsarfaty, Jon Clark, and Yiming Cui will give talks on multilinguality in question answering; in the afternoon session, Jonathan Berant, Marco Tulio Ribeiro, and Hannaneh Hajishirzi will give talks on interpretability in question answering. We thank these speakers, our program committee, the EMNLP workshop chairs, and our sponsors, Baidu and Facebook, for helping to make this workshop possible.
Organizing Committee

Adam Fisch, MIT
Alon Talmor, Tel Aviv University
Danqi Chen, Princeton University
Eunsol Choi, The University of Texas at Austin
Minjoon Seo, Naver & KAIST
Patrick Lewis, Facebook & University College London
Robin Jia, University of Southern California
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Shayne Longpre
Shuhang Wang
Thomas Kwiatkowski
Tong Wang
Tushar Khot
Xiaodong Liu
Xinya Du
Yichen Jiang
Yizhong Wang
Yuxiang Wu

Invited Speaker

v
Reut Tsarfaty, Bar Illan University
Jon Clark, Google
Yiming Cui, Joint Laboratory of HIT and iFLYTEK Research (HFL)
Jonathan Berant, Tel Aviv University, Allen Institute for AI
Marco Tulio Ribeiro, Microsoft Research
Hannah Hajishirzi, University of Washington, Allen Institute for Artificial Intelligence
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9:15–11:30 Multilingual QA Invited Talk Session

9:15–9:45   Invited Talk 1 - Reut Tsarfaty

9:45–10:15 Invited Talk 2 - Jon Clark

10:15–10:45 Invited Talk 3 - Yiming Cui

10:45–11:30 Panel Discussion on Multilingual QA

11:30–12:30 Lunch break

12:30–13:10 Best Paper Talk Session

12:30–12:44 MFAQ: a Multilingual FAQ Dataset
   Maxime De Bruyn, Ehsan Lotfi, Jeska Buhmann and Walter Daelemans

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   Martin Fajcik, Josef Jon and Pavel Smrz

12:57–13:10 What Would it Take to get Biomedical QA Systems into Practice?
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**13:10–14:10 Poster Session (archival track)**

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Timo Möller, Julian Risch and Malte Pietsch

**13:10–14:10** *Zero-Shot Clinical Questionnaire Filling From Human-Machine Interactions*  
Farnaz Ghassemi Toudeshki, Philippe Jolivet, Alexandre Durand-Salmon and Anna Liednikova

**13:10–14:10** *Can Question Generation Debias Question Answering Models? A Case Study on Question–Context Lexical Overlap*  
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Omri Keren and Omer Levy

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**13:10–14:10** *GANDALF: a General Character Name Description Dataset for Long Fiction*  
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**13:10–14:10** *Investigating Post-pretraining Representation Alignment for Cross-Lingual Question Answering*  
Fahim Faisal and Antonios Anastasopoulos
13:10–14:10  **Semantic Answer Similarity for Evaluating Question Answering Models**  
Julian Risch, Timo Möller, Julian Gutsch and Malte Pietsch

13:10–14:10  **Simple and Efficient ways to Improve REALM**  
Vidhisha Balachandran, Ashish Vaswani, Yulia Tsvetkov and Niki Parmar

13:10–14:10  **Poster Session (non-archival track)**

13:10–14:10  **Synthetic Target Domain Supervision for Open Retrieval QA**  
Revanth Gangi Reddy, Bhavani Iyer, Md Arafat Sultan, Rong Zhang, Avirup Sil,  
Vittorio Castelli, Radu Florian, Salim Roukos

13:10–14:10  **Entity-based Knowledge Conflicts in Question Answering**  
Shayne Longpre, Kartik Perisetla, Anthony Chen, Nikhil Ramesh, Chris Dubois,  
Sameer Singh

13:10–14:10  **Mitigating False-Negative Contexts in Multi-Document Question Answering with Retrieval Marginalization**  
Ansong Ni, Matt Gardner, Pradeep Dasigi

13:10–14:10  **Generative Context Pair Selection for Multi-hop Question Answering**  
Dheeru Dua, Cicero Nogueira dos Santos, Patrick Ng, Ben Athiwaratkun, Bing Xiang,  
Matt Gardner, Sameer Singh

13:10–14:10  **Learning with Instance Bundles for Reading Comprehension**  
Dheeru Dua, Pradeep Dasigi, Sameer Singh, Matt Gardner

13:10–14:10  **Can NLI Models Verify QA Systems’ Predictions?**  
Jifan Chen, Eunsol Choi, Greg Durrett

13:10–14:10  **Knowing More About Questions Can Help: Improving Calibration in Question Answering**  
Shujian Zhang, Chengyue Gong and Eunsol Choi

13:10–14:10  **RocketQA: An Optimized Training Approach to Dense Passage Retrieval for Open-Domain Question Answering**  
Yingqi Qu, Yuchen Ding, Jing Liu, Kai Liu, Ruiyang Ren, Wayne Xin Zhao, Daxiang Dong,  
Hua Wu and Haifeng Wang

13:10–14:10  **Weakly Supervised Pre-Training for Multi-Hop Retriever**  
Yeon Seonwoo, Sang-Woo Lee, Ji-Hoon Kim, Jung-Woo Ha and Alice Oh

13:10–14:10  **ReasonBert: Pre-trained to Reason with Distant Supervision**  
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13:10–14:10  *Question Answering over Electronic Devices: A New Benchmark Dataset and a Multi-Task Learning based QA Framework*  
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13:10–14:10  *Do We Know What We Don’t Know? Studying Unanswerable Questions beyond SQuAD 2.0*  
Elior Sulem, Jamaal Hay and Dan Roth

13:10–14:10  *Relation-Guided Pre-Training for Open-Domain Question Answering*  
Ziniu Hu, Yizhou Sun and Kai-Wei Chang

13:10–14:10  *Beyond Reptile: Meta-Learned Dot-Product Maximization between Gradients for Improved Single-Task Regularization*  
Akhil Kedia, Sai Chetan Chinthakindi and Wonho Ryu

13:10–14:10  *SD-QA: Spoken Dialectal Question Answering for the Real World*  
Fahim Faisal, Sharlina Keshava, Md Mahfuz Ibn Alam and Antonios Anastasopoulos

13:10–14:10  *When Retriever-Reader Meets Scenario-Based Multiple-Choice Questions*  
ZiXian Huang, Ao Wu, Yulin Shen, Gong Cheng and Yuzhong Qu

13:10–14:10  *Winnowing Knowledge for Multi-choice Question Answering*  
Yeqiu Li, Bowei Zou, Zhifeng Li, Ai Ti Aw, Yu Hong and Qiaoming Zhu

13:10–14:10  *Extract, Integrate, Compete: Towards Verification Style Reading Comprehension*  
Chen Zhang, Yuxuan Lai, Yansong Feng and Dongyan Zhao

13:10–14:10  *Reference-based Weak Supervision for Answer Sentence Selection using Web Data*  
Vivek Krishnamurthy, Thuy Vu and Alessandro Moschitti

13:10–14:10  *NOAHQA: Numerical Reasoning with Interpretable Graph Question Answering Dataset*  
Qiyuan Zhang, Lei Wang, SICHENG YU, Shuohang Wang, Yang Wang, Jing Jiang and Ee-Peng Lim

13:10–14:10  *Improving Numerical Reasoning Skills in the Modular Approach for Complex Question Answering on Text*  
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13:10–14:10  *R2-D2: A Modular Baseline for Open-Domain Question Answering*  
Martin Fajcik, Martin Docekal, Karel Ondrej and Pavel Smrz

13:10–14:10  *AutoEQA: Auto-Encoding Questions for Extractive Question Answering*  
Stalin Varanasi, Saadullah Amin and Guenter Neumann

14:10–14:30  *Break*
Wednesday, November 10, 2021 (continued)

14:30–16:45  Interpretability in QA Invited Talk Session

14:30–15:00  Invited Talk 4 - Jonathan Berant

15:00–15:30  Invited Talk 5 - Marco Tulio Ribeiro

15:30–16:00  Invited Talk 6 - Hannaneh Hajishirzi

16:00–16:45  Panel Discussion on Interpretability in QA

16:45–17:00  Closing Remarks