



The 7th Dialog System Technology Challenge

DSTC7 Challenge organizers



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Sponsors



Gold



WeChat

Silver



Adobe Research


Uber AI

Uber AI

Dialog State Tracking Challenges



- DSTCs have been held as challenges of “dialog state tracking,” as tasks to track dialog frames in several situations

	Type	Domain	Language	Collected By	Theme
DSTC1	Human-Machine	Bus Timetable	English	CMU Antoine Laux @b4.ai 	Evaluation metrics
DSTC2	Human-Machine	Restaurant	English	University of Cambridge	Changing user goals
DSTC3	Human-Machine	Tourist Information	English	University of Cambridge	Cross-domain adaptation
DSTC4	Human-Human	Tourist Information	English	I2R	Human conversations
DSTC5	Human-Human	Tourist Information	English Chinese	I2R	Cross-language adaptation



Dialog System Technology Challenge



Chulaka
Gunasekara



Lazaros
Polymenakos



Chris Brockett



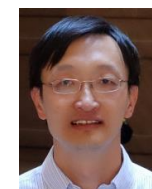
Bill Dolan



Michel
Galley



Xiang Gao



Jianfeng Gao



Jonathan
Kummerfeld



Walter
Lasecki



Chiori HORI



Tim K. Marks



Huda Alamri



Devi Parikh



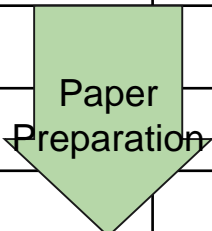
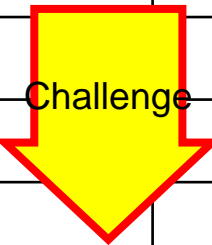
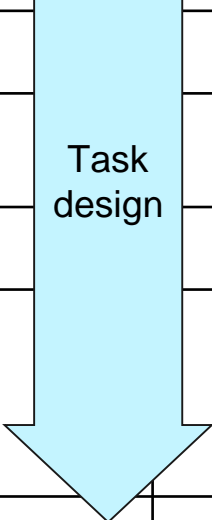
Dhruv Batra

DSTC7 track1	Response selection	Ubuntu Student assistant	English	IBM Michigan	Response selection in several conditions
DSTC7 track2	Response generation	Open (reddit)	English	Microsoft	Generation system grounded to entities
DSTC7 track3	Audio visual scene aware dialog	Chalades	English	MERL Georgia Tech	Extension of VQA to dialog about video

Timelines



Time	Event
Sep 2017 – Dec 2017	Call for task proposals of Tasks
10 December 2017	Challenge planning meeting @ DSTC6-WS collocated with NIPS2017 (5 proposals)
Jan 2018 – Mar 2018	Task selection process with peer review
Mar 2018	Selected three tracks: <ul style="list-style-type: none"> • Sentence selection • Sentence generation • Audio visual scene aware dialog
Mar 2018 – May 2018	Track preparation
1 Jun 2018 – 9 Sep 2018	Development phase
10 Sep 2018 – 8 Oct 2018	Evaluation phase
16 Oct 2018	Objective evaluation results are released
23 Oct 2018	Human evaluation results are released
16 Nov 2018	Paper submission
27 Jan 2019	DSTC7 wrap-up workshop @ AAAI



More than 200 people registered

34 papers accepted

Participants of this Challenge



- There are **234 registrations** to show their interests for challenges
- **139 systems by 36 teams** were submitted as final results
- **34 papers** will be presented in the workshop
- **74 registrations** to the workshop (in Jan 9th) + on-site
- **8 proposals** of DSTC8 was submitted
 - Will be discussed at the discussion track of the workshop



AAAI-19: Thirty-Third AAAI Conference on Artificial Intelligence

January 27 – February 1, 2019, Hilton Hawaiian Village, Honolulu, Hawaii, USA

Artificial
Intelligence

www.elsevier.com/locate/artint

Workshop on

Reasoning and Learning for Human-Machine Dialogues

(DEEP-DIAL 2019)

Organizers:

Biplay Srivastava, IBM, USA
Susanne Biundo, University of Ulm, Germany
Ullas Nambiar, Zensar Labs, India
Imed Zitouni, Microsoft AI+R, USA

URL: <https://sites.google.com/view/deep-dial-2019/>
January 27, 2019



Interest Areas (Non Limiting)

- **Dialog Systems**
 - Design considerations for dialog systems
 - Evaluation of dialog systems, metrics
 - Open domain dialog and chat systems
 - Task-oriented dialogs
 - Style, voice and personality in spoken dialogue and written text
 - Novel Methods for NL Generation for dialogs
 - **Early experiences with implemented dialog systems**
 - **Mixed-initiative dialogs where a partner is a combination of agent and human**
 - Hybrid methods
- ▶ **Reasoning**
 - ▶ Domain model acquisition, especially from unstructured text
 - ▶ Plan recognition in natural conversation
 - ▶ Planning and reasoning in the context of dialog systems
 - ▶ **Handling uncertainty**
 - ▶ **Optimal dialog strategies**
- ▶ **Learning**
 - ▶ Learning to reason
 - ▶ Learning for dialog management
 - ▶ End2end models for conversation
 - ▶ Explaining dialog policy
- ▶ **Practical Considerations**
 - ▶ **Responsible chatting**
 - ▶ Ethical issues with learning and reasoning in dialog systems
 - ▶ Corpora, Tools and Methodology for Dialogue Systems
 - ▶ **Securing one's chat**

* **Bold:** new topics beyond DEEP-DIAL 2018

About the Workshop

- # (8+15) Program Committee Members
- 19 Papers submitted
 - 6 accepted for full presentation
 - 5 accepted for lightning talks and posters
- AIJ Supported Competition cum Support Program
- 3 exciting invited talks
- ~60 registered participants

Program Committee

1. Pavan Kapanipathi, IBM TJ Watson Research Center, USA
2. Mitesh Vasa, IBM, USA
3. Matthew Peveler, Rensselaer Polytechnic Institute, USA
4. Q. Vera Liao, IBM, USA
5. Madian Khabsa, Apple, USA
6. Debdoot Mukherjee, Hike Messenger, India
7. Seyyed Hadi Hashemi, University of Amsterdam, Netherlands
8. Sumant Kulkarni, Zenlabs, Zensar Technologies, India
9. Julia Kiseleva, Microsoft Research AI, USA
10. Kyle Williams, Microsoft, USA
11. Rahul Jha, University of Michigan, USA
12. Srikanth Tamilselvam, IBM Global Business Services, India
13. Adi Botea, IBM, Ireland
14. Walter Lasecki, University of Michigan, Computer Science & Engineering, USA
15. Atriya Sen, Rensselaer Polytechnic Institute, USA



Title: Towards Collaborative Dialogue

Speaker: Prof. Phil Cohen, Monash University, Australia



Title: Using Conversation Agents for Customer Support at Scale - the IBM Case Study

Speaker: Jim Dewan, Solution Architect, IBM Support Transformation Team, USA



Title: Towards smart chatbots for enhanced health: using multisensory sensing, semantic-cognitive-perceptual computing for monitoring, appraisal, adherence to intervention

Speaker: Prof. Amit Sheth, AAAI and IEEE Fellow, Knoesis, Wright State University, USA