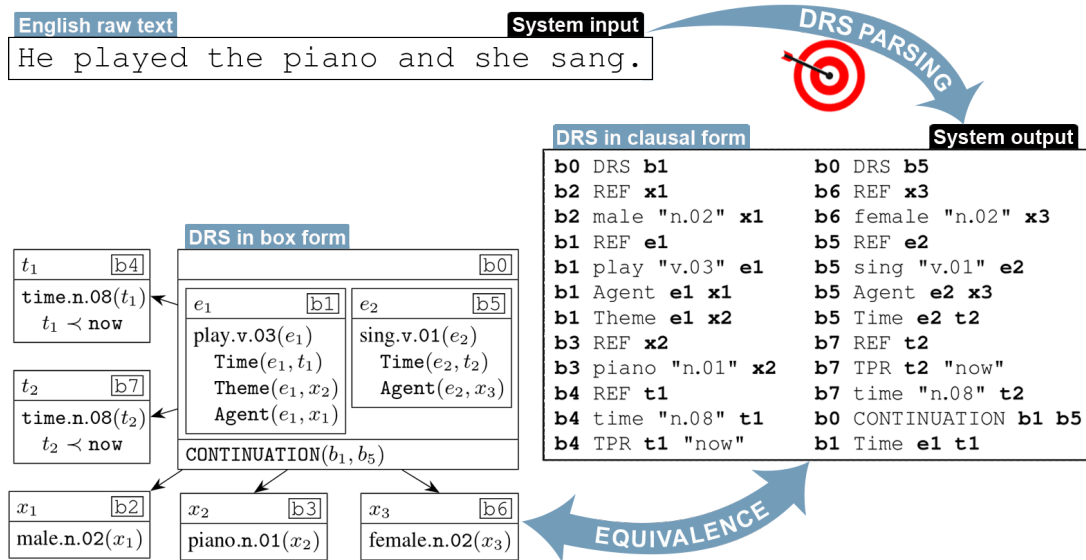


Proceedings of the IWCS Shared Task on Semantic Parsing



May 24, 2019
Gothenburg, Sweden

Lasha Abzianidze, Rik van Noord, Hessel Haagsma and Johan Bos (eds.)

Proceedings of the IWCS Shared Task on Semantic Parsing

©2019 The Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)

209 N. Eighth Street

Stroudsburg, PA 18360

USA

Tel: +1-570-476-8006

Fax: +1-570-476-0860

acl@aclweb.org

ISBN 978-1-950737-23-9

Preface

These workshop proceedings conclude the first shared task on DRS parsing, launched in October, 2018. The workshop was collocated with the 13th International Conference on Computational Semantics (IWCS 2019), held at the University of Gothenburg, Sweden. The goal of the shared task was to produce Discourse Representation Structures (DRSs) for English sentences. Given that DRSs originated from Discourse Representation Theory, a classic theory for studying formal semantics of natural language text, it is difficult to imagine a more suitable topic hosted at IWCS.

DRS parsing is a challenging task, as systems are expected to produce scoped meaning representations involving negation, modals, quantification, and presupposition triggers. Additionally, concepts and event participants in DRSs are described with WordNet synsets and the thematic roles from VerbNet. In this first episode of DRS parsing we tested systems mainly on short, open-domain sentences, to make the threshold for participation as low as possible. We received four system submissions and three system description papers out of 32 registered participants. One system was not described in the workshop paper in order to prevent violating the anonymity clause of the ACL policy for submission. Each system description paper was reviewed by three members of the organising committee – all papers were accepted.

The first shared task on DRS parsing was successful. Despite a small number of submissions, the state-of-the-art results in DRS parsing was moved to a higher level. The variety in methods used (models based on recursive neural networks, transformer models, models based on transition-based parsing, graph decoders) gives inspiration for future series of the shared task.

This is the first time that IWCS hosts a shared task, and we would like to thank the IWCS organizers, the shared task participants and the authors for making this shared task and workshop a successful story!

Shared task page: <https://competitions.codalab.org/competitions/20220>

Workshop page: <https://sites.google.com/view/iwcs2019/shared-task>

Sponsors:



Groningen, 21 May 2019

*Lasha Abzianidze
Rik van Noord
Hessel Haagsma
Johan Bos*

Table of Contents

The First Shared Task on Discourse Representation Structure Parsing
Lasha Abzianidze, Rik van Noord, Hessel Haagsma and Johan Bos 1

Transition-based DRS Parsing Using Stack-LSTMs
Kilian Evang 16

Discourse Representation Structure Parsing with Recurrent Neural Networks and the Transformer Model
Jiangming Liu, Shay B. Cohen and Mirella Lapata 24

Neural Boxer at the IWCS Shared Task on DRS Parsing
Rik van Noord 30

Á

K cf_g\ cd'Dfc[fUa a Y =K 7 GB% 'G\ UfYX'HUg_ 'cb'GYa Ubh]WDFg]b['


Š[&æ] } KÖ ääF•Á[[|ÉY æ] ^) à^! * Á^ d^Á

%.\$\$.^	V@ÁÚææ Á^æ æ * ÁÖæ \ ÄÖæ ÁQd[ä ~ &æ] } ÁÁ	Á
%.'.\$		R[@æ ÁÓ[•Á

%.'.\$	V@ÁÖä•ÁÚ@æ^äÁæ\ Á} Öä &[~ •^ÁÜ^] ^•^} ææ } ÁÜd~ &c ^ÁÚæ•æ * Á	Á
%.\$\$.^		Šæ @æÖä: ææ ä: ^Á

%.\$\$.^	V!æ • äæ } Èæ ^ä ÖÜÜÁÚæ•æ * ÁVæ * ÁÚæ& ĚSÜVT • ÁÁ	Á
%.'.\$		Säæ ÁÖæ * Á

Á
 Ô[~^^Á!^æ Á
 Á Á

%.\$\$.^	Öä &[~ •^ÁÜ^] ^•^} ææ } ÁÜd~ &c ^ÁÚæ•æ * Á ä@Ü^& !!^} óP^ æÁ	
%.'.\$	P^ç [\ • Áæ äÁ@ÁV!æ • { { ^!Á [ä^Á	Rææ * { æ * Ásä Á

%.'.\$	P^ æÁ [ç^! Áæ@Á ÖÜÜÁÚæ^äÁæ\ Á} ÖÜÜÁÚæ•æ * ÁÁ	Á
%.\$\$.^		Üä Áæ Á [[äÁ

%.\$\$.^	Ü^ ^ &æ } Áæ äÁ c ^ÁÚ æ • Á	Á
%.'.\$		R[@æ ÁÓ[•Á

Á

Á

%.\$\$.^	Ö ÖÜÁ] ^} æ * Á^&] æ } Á
----------	--------------------------

Á