

Fifth Workshop on Arabic Natural Language Processing (WANLP 2020)

Held online due to COVID-19

Barcelona, Spain
12 December 2020

ISBN: 978-1-7138-2843-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2020) by the Association for Computational Linguistics
All rights reserved.

Copyright for individual papers remains with the authors and are licensed under a Creative Commons 4.0 license, CC-BY. (<https://creativecommons.org/licenses/by/4.0/>)

Printed with permission by Curran Associates, Inc. (2021)

For permission requests, please contact the Association for Computational Linguistics at the address below.

Association for Computational Linguistics
209 N. Eighth Street
Stroudsburg, Pennsylvania 18360

Phone: 1-570-476-8006

Fax: 1-570-476-0860

acl@aclweb.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

<i>German-Arabic Speech-to-Speech Translation for Psychiatric Diagnosis</i> Juan Hussain, Mohammed Mediani, Moritz Behr, M. Amin Cheragui, Sebastian Stüker and Alexander Waibel	1
<i>Hate Speech Detection in Saudi Twittersphere: A Deep Learning Approach</i> Raghad Alshaalan and Hend Al-Khalifa	12
<i>Is it Great or Terrible? Preserving Sentiment in Neural Machine Translation of Arabic Reviews</i> Hadeel Saadany and Constantin Orasan	24
<i>Deep Diacritization: Efficient Hierarchical Recurrence for Improved Arabic Diacritization</i> Badr AlKhamissi, Muhammad ElNokrashy and Mohamed Gabr	38
<i>A Semi-Supervised BERT Approach for Arabic Named Entity Recognition</i> Chadi Helwe, Ghassan Dib, Mohsen Shamas and Shady Elbassuoni	49
<i>Empathy-driven Arabic Conversational Chatbot</i> Tarek Naous, Christian Hokayem and Hazem Hajj	58
<i>Machine Generation and Detection of Arabic Manipulated and Fake News</i> El Moatez Billah Nagoudi, AbdelRahim Elmadany, Muhammad Abdul-Mageed and Tariq Alhindi	69
<i>Transliteration of Judeo-Arabic Texts into Arabic Script Using Recurrent Neural Networks</i> Ori Terner, Kfir Bar and Nachum Dershowitz	85
<i>NADI 2020: The First Nuanced Arabic Dialect Identification Shared Task</i> Muhammad Abdul-Mageed, Chiyu Zhang, Houda Bouamor and Nizar Habash	97
<i>Multi-dialect Arabic BERT for Country-level Dialect Identification</i> Bashar Talafha, Mohammad Ali, Muhy Eddin Za'ter, Haitham Seelawi, Ibraheem Tuffaha, Mostafa Samir, Wael Farhan and Hussein Al-Natsheh	111
<i>On the Importance of Tokenization in Arabic Embedding Models</i> Mohamed Alkaoud and Mairaj Syed	119
<i>Tracing Traditions: Automatic Extraction of Isnads from Classical Arabic Texts</i> Ryan Muther and David Smith	130
<i>Embed More Ignore Less (EMIL): Exploiting Enriched Representations for Arabic NLP</i> ahmed younes and Julie Weeds	139
<i>MANorm: A Normalization Dictionary for Moroccan Arabic Dialect Written in Latin Script</i> Randa Zarnoufi, Hamid Jaafar, Walid Bachri and Mounia Abik	155
<i>A Unified Model for Arabizi Detection and Transliteration using Sequence-to-Sequence Models</i> Ali Shazal, Aiza Usman and Nizar Habash	167
<i>Multi-Task Sequence Prediction For Tunisian Arabizi Multi-Level Annotation</i> elisa gugliotta, Marco Dinarelli and Olivier Kraif	178
<i>AraWEAT: Multidimensional Analysis of Biases in Arabic Word Embeddings</i> Anne Lauscher, Rafik Takieddin, Simone Paolo Ponzetto and Goran Glavaš	192

<i>Parallel resources for Tunisian Arabic Dialect Translation</i>	
Saméh Kchaou, Rahma Boujelbane and Lamia Hadrich-Belguith	200
<i>Bert Transformer model for Detecting Arabic GPT2 Auto-Generated Tweets</i>	
Fouzi Harrag, Maria Dabbah, Kareem Darwish and Ahmed Abdelali	207
<i>Contextual Embeddings for Arabic-English Code-Switched Data</i>	
Caroline Sabty, Mohamed Islam and Slim Abdennadher	215
<i>Improving Arabic Text Categorization Using Transformer Training Diversification</i>	
Shammur Absar Chowdhury, Ahmed Abdelali, Kareem Darwish, Jung Soon-Gyo, Joni Salminen and Bernard J. Jansen	226
<i>Team Alexa at NADI Shared Task</i>	
mutaz younes, Nour Al-khdour and Mohammad AL-Smadi	237
<i>Comparison between Voting Classifier and Deep Learning methods for Arabic Dialect Identification</i>	
GHOUL dhaou and Gaël Lejeune	243
<i>Simple vs Oversampling-based Classification Methods for Fine Grained Arabic Dialect Identification in Twitter</i>	
Mohamed Lichouri and Mourad Abbas	250
<i>Semi-supervised Fine-grained Approach for Arabic dialect detection task</i>	
Nitin Nikamanth Appiah Balaji and Bharathi B	257
<i>Arabic Dialect Identification Using BERT-Based Domain Adaptation</i>	
Ahmad Beltagy, Abdelrahman Abouelenin and Omar ElSherief	262
<i>Weighted combination of BERT and N-GRAM features for Nuanced Arabic Dialect Identification</i>	
Abdellah El Mekki, Ahmed Alami, Hamza Alami, Ahmed Khoumsi and Ismail Berrada	268
<i>Arabic dialect identification: An Arabic-BERT model with data augmentation and ensembling strategy</i>	
Kamel Gaanoun and Imade Benelallam	275
<i>Faheem at NADI shared task: Identifying the dialect of Arabic tweet</i>	
Nouf AlShenaifi and Aqil Azmi	282
<i>Identifying Nuanced Dialect for Arabic Tweets with Deep Learning and Reverse Translation Corpus Extension System</i>	
Rawan Tahssin, Youssef Kishk and Marwan Torki	288
<i>The QMUL/HRBDT contribution to the NADI Arabic Dialect Identification Shared Task</i>	
Abdulrahman Aloraini, Massimo Poesio and Ayman Alhelbawy	295
<i>Arabic Dialects Identification for All Arabic countries</i>	
Ahmed aliwy, Hawraa Taher and Zena AboAltaheen	302
<i>Arabic Dialect Identification Using BERT Fine-Tuning</i>	
Moataz Mansour, Moustafa Tohamy, Zeyad Ezzat and Marwan Torki	308
<i>LTG-ST at NADI Shared Task 1: Arabic Dialect Identification using a Stacking Classifier</i>	
Samia Touileb	313