

Fourth Workshop on Arabic Natural Language Processing (WANLP 2019)

Florence, Italy
1 August 2019

ISBN: 978-1-5108-9112-8

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© (2019) by the Association for Computational Linguistics
All rights reserved.

Printed by Curran Associates, Inc. (2019)

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>Incremental Domain Adaptation for Neural Machine Translation in Low-Resource Settings</i> Marimuthu Kalimuthu, Michael Barz and Daniel Sonntag	1
<i>Morphology-aware Word-Segmentation in Dialectal Arabic Adaptation of Neural Machine Translation</i> Ahmed Tawfik, Mahitab Emam, Khaled Essam, Robert Nabil and Hany Hassan	11
<i>POS Tagging for Improving Code-Switching Identification in Arabic</i> Mohammed Attia, Younes Samih, Ali Elkahky, Hamdy Mubarak, Ahmed Abdelali and Kareem Darwish	18
<i>Syntax-Ignorant N-gram Embeddings for Sentiment Analysis of Arabic Dialects</i> Hala Mulki, Hatem Haddad, Mourad Gridach and Ismail Babaoğlu	30
<i>ArbEngVec : Arabic-English Cross-Lingual Word Embedding Model</i> Raki Lachraf, El Moatez Billah Nagoudi, Youcef Ayachi, Ahmed Abdelali and Didier Schwab	40
<i>Homograph Disambiguation through Selective Diacritic Restoration</i> Sawsan Alqahtani, Hanan Aldarmaki and Mona Diab	49
<i>Arabic Named Entity Recognition: What Works and What’s Next</i> Liyuan Liu, Jingbo Shang and Jiawei Han	60
<i>hULMonA: The Universal Language Model in Arabic</i> Obeida ElJundi, Wissam Antoun, Nour El Droubi, Hazem Hajj, Wassim El-Hajj and Khaled Shaban	68
<i>Neural Models for Detecting Binary Semantic Textual Similarity for Algerian and MSA</i> Wafia Adouane, Jean-Philippe Bernardy and Simon Dobnik	78
<i>Constrained Sequence-to-sequence Semitic Root Extraction for Enriching Word Embeddings</i> Ahmed El-Kishky, Xingyu Fu, Aseel Addawood, Nahil Sobh, Clare Voss and Jiawei Han	88
<i>En-Ar Bilingual Word Embeddings without Word Alignment: Factors Effects</i> Taghreed Alqaisi and Simon O’Keefe	97
<i>Neural Arabic Question Answering</i> Hussein Mozannar, Elie Maamary, Karl El Hajal and Hazem Hajj	108
<i>Segmentation for Domain Adaptation in Arabic</i> Mohammed Attia and Ali Elkahky	119
<i>Assessing Arabic Weblog Credibility via Deep Co-learning</i> Chadi Helwe, Shady Elbassuoni, Ayman Al Zaatari and Wassim El-Hajj	130
<i>Morphologically Annotated Corpora for Seven Arabic Dialects: Taizi, Sanaani, Najdi, Jordanian, Syrian, Iraqi and Moroccan</i> Faisal Alshargi, Shahd Dibas, Sakhar Alkhereyf, Reem Faraj, Basmah Abdulkareem, Sane Yagi, Ouafaa Kacha, Nizar Habash and Owen Rambow	137
<i>Construction and Annotation of the Jordan Comprehensive Contemporary Arabic Corpus (JCCA)</i> Majdi Sawalha, Faisal Alshargi, Abdallah AlShdaifat, Sane Yagi and Mohammad A. Qudah	148

<i>Translating Between Morphologically Rich Languages: An Arabic-to-Turkish Machine Translation System</i>	
İlknur Durgar El-Kahlout, Emre Bektaş, Naime Şeyma Erdem and Hamza Kaya	158
<i>Improved Generalization of Arabic Text Classifiers</i>	
Alaa Khaddaj, Hazem Hajj and Wassim El-Hajj	167
<i>OSIAN: Open Source International Arabic News Corpus - Preparation and Integration into the CLARIN-infrastructure</i>	
Imad Zeroual, Dirk Goldhahn, Thomas Eckart and Abdelhak Lakhouaja	175
<i>Arabic Tweet-Act: Speech Act Recognition for Arabic Asynchronous Conversations</i>	
Bushra Algotiml, AbdelRahim Elmadany and Walid Magdy	183
<i>Mazajak: An Online Arabic Sentiment Analyser</i>	
Ibrahim Abu Farha and Walid Magdy	192
<i>The MADAR Shared Task on Arabic Fine-Grained Dialect Identification</i>	
Houda Bouamor, Sabit Hassan and Nizar Habash	199
<i>ZCU-NLP at MADAR 2019: Recognizing Arabic Dialects</i>	
Pavel Přibáň and Stephen Taylor	208
<i>Simple But Not Naïve: Fine-Grained Arabic Dialect Identification Using Only N-Grams</i>	
Sohaila Eltanbouly, May Bashendy and Tamer Elsayed	214
<i>LIUM-MIRACL Participation in the MADAR Arabic Dialect Identification Shared Task</i>	
Saméh Kchaou, Fethi Bougares and Lamia Hadrich-Belguith	219
<i>Arabic Dialect Identification with Deep Learning and Hybrid Frequency Based Features</i>	
Youssef Fares, Zeyad El-Zanaty, Kareem Abdel-Salam, Muhammed Ezzeldin, Aliaa Mohamed, Karim El-Awaad and Marwan Torki	224
<i>MICHAEL: Mining Character-level Patterns for Arabic Dialect Identification (MADAR Challenge)</i>	
Dhaou Ghoul and Gaël Lejeune	229
<i>Arabic Dialect Identification for Travel and Twitter Text</i>	
Pruthwik Mishra and Vandan Mujadia	234
<i>Mawdoo3 AI at MADAR Shared Task: Arabic Tweet Dialect Identification</i>	
Bashar Talafha, Wael Farhan, Ahmed Altakrouri and Hussein Al-Natsheh	239
<i>Mawdoo3 AI at MADAR Shared Task: Arabic Fine-Grained Dialect Identification with Ensemble Learning</i>	
Ahmad Ragab, Haitham Seelawi, Mostafa Samir, Abdelrahman Mattar, Hesham Al-Bataineh, Mohammad Zaghoul, Ahmad Mustafa, Bashar Talafha, Abed Alhakim Freihat and Hussein Al-Natsheh	244
<i>Hierarchical Deep Learning for Arabic Dialect Identification</i>	
Gael de Francony, Victor Guichard, Praveen Joshi, Haithem Afi and Abdessalam Boucekif	249
<i>ArbDialectID at MADAR Shared Task 1: Language Modelling and Ensemble Learning for Fine Grained Arabic Dialect Identification</i>	
Kathrein Abu Kwaik and Motaz Saad	254

<i>The SMarT Classifier for Arabic Fine-Grained Dialect Identification</i> Karima Meftouh, Karima Abidi, Salima Harrat and Kamel Smaili	259
<i>JHU System Description for the MADAR Arabic Dialect Identification Shared Task</i> Tom Lippincott, Pamela Shapiro, Kevin Duh and Paul McNamee	264
<i>ST MADAR 2019 Shared Task: Arabic Fine-Grained Dialect Identification</i> Mourad Abbas, Mohamed Lichouri and Abed Alhakim Freihat	269
<i>A Character Level Convolutional BiLSTM for Arabic Dialect Identification</i> Mohamed Elaraby and Ahmed Zahran	274
<i>No Army, No Navy: BERT Semi-Supervised Learning of Arabic Dialects</i> Chiyu Zhang and Muhammad Abdul-Mageed	279
<i>Team JUST at the MADAR Shared Task on Arabic Fine-Grained Dialect Identification</i> Bashar Talafha, Ali Fadel, Mahmoud Al-Ayyoub, Yaser Jararweh, Mohammad AL-Smadi and Patrick Juola	285
<i>QC-GO Submission for MADAR Shared Task: Arabic Fine-Grained Dialect Identification</i> Younes Samih, Hamdy Mubarak, Ahmed Abdelali, Mohammed Attia, Mohamed Eldesouki and Kareem Darwish	290