### EMNLP-IJCNLP 2019

# Natural Language Processing for Internet Freedom: Censorship, Disinformation, and Propaganda NLP4IF 2019

**Proceedings of the Workshop** 

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### Preface

Welcome to the second edition of the Workshop on Natural Language Processing for Internet Freedom (NLP4IF 2019). This year, we focused on censorship, disinformation, and propaganda.

We further featured a shared task on the identification of propaganda in news articles. The task included two subtasks with different levels of complexity. Given a news article, the FLC subtask (fragment-level classification) asked for the identification of the propagandistic text fragments and also for the prediction of the specific propaganda technique used in this fragment (18-way classification task). The SLC subtask (sentence-level classification) is a binary classification task, which asked to detect the sentences that contain propaganda. A total of 39 teams submitted runs; 21 teams participated in the FLC subtask and 35 teams took part in the SLC subtask. Fourteen participants submitted a system description paper, which include models based on a wide range of learning models (e.g., neural networks, logistic regression) and representations (e.g., manually-engineered features, distributional representations).

We accepted a total of 24 papers: 10 for the regular track and 14 for the shared task. We are excited that the workshop includes a diverse set of topics: rumor and trolls detection, censorship and controversy, fake news vs. satire, uncovering propaganda and abusive language identification.

We are also thrilled to be able to bring an invited speaker, Elissa Redmiles from Princeton University and Microsoft Research, with a talk on measuring human perception to defend democracy, exploring a specific attack on the freedom of U.S. elections – the IRA Facebook advertisements, which successfully influenced people and avoided detection – and a defense against propaganda, which uses human perceptions to defend against the very propaganda that aims to influence those perceptions.

Last but not least, we would like to thank the program committee and the shared task participants for their help with reviewing the papers, and with advertising the workshop.

The NLP4IF 2019 Organizers:

Anna Feldman Giovanni Da San Martino Alberto Barŕon-Cedeño Chris Brew Chris Leberknight Preslav Nakov

#### Organizers

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#### **Invited Speaker**

Elissa Redmiles, Princeton and Microsoft Research (USA)

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9:30-9:50	Calls to Action on Social Media: Detection, Social Impact, and Censorship Poten- tial
	Anna Rogers, Olga Kovaleva and Anna Rumshisky
9:50-10:10	Identifying Nuances in Fake News vs. Satire: Using Semantic and Linguistic Cues
7.50-10.10	Or Levi, Pedram Hosseini, Mona Diab and David Broniatowski
10:10-10:30	Identifying Perspectives in Online News using Weakly Supervised Generative Mod-
	els
	Srinivasan Iyer and Mike Lewis
10:30-11:00	Coffee Break
11:00-11:20	Generating Sentential Arguments from Diverse Perspectives on Controversial Topic
	ChaeHun Park, Wonsuk Yang and Jong Park
11:20-11:40	Unraveling the Search Space of Abusive Language in Wikipedia
	with Dynamic Lexicon Acquisition
	Wei-Fan Chen, Khalid Al Khatib, Matthias Hagen, Henning Wachsmuth and Benno
	Stein
11:40-12:00	<i>Findings of the NLP4IF-2019 Shared Task On Fine-grained Propaganda Detection</i> Giovanni Da San Martino, Alberto Barrón-Cedeño and Preslav Nakov
12:00-12:20	Divisive Language and Propaganda Detection using Multi-head Attention Trans-
	formers with Deep Learning BERT-based Language Models for Binary Classifica-
	tion
	Norman Mapes, Anna White, Radhika Medury and Sumeet Dua
12:20-12:40	Fine-Grained Propaganda Detection with Fine-Tuned BERT
	Shehel Yoosuf and Yin Yang
12:40-14:00	Lunch Break
14:00-15:00	Invited Talk: Elissa Redmiles (Princeton University/Microsoft), Human Per-
15.00 15.20	ception to Defend Democracy
15:00-15:30	Coffee Break

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Detecting context abusiveness using hierarchical deep learning Ju-Hyoung Lee, Jun-U Park, Jeong-Won Cha and Yo-Sub Han How Many Users Are Enough? Exploring Semi-Supervision and Stylometric Features to Uncover a Russian Troll Farm Nayeema Nasrin, Kim-Kwang Raymond Choo, Myung Ko and Anthony Rios Mapping (Dis-)Information Flow about the MH17 Plane Crash Mareike Hartmann, Yevgeniy Golovchenko and Isabelle Augenstein Rumor Detection on Social Media: Datasets, Methods and Opportunities Quanzhi Li, Qiong Zhang, Luo Si and Yingchi Liu CAUnLP at NLP4IF 2019 Shared Task: Context-Dependent BERT for Sentence-Level Propaganda Detection Wenjun Hou and Ying Chen Neural Architectures for Fine-Grained Propaganda Detection in News Pankaj Gupta, Khushbu Saxena, Usama Yaseen, Thomas Runkler and Hinrich Schütze Fine-Tuned Neural Models for Propaganda Detection at the Sentence and Fragment levels Tariq Alhindi, Jonas Pfeiffer and Smaranda Muresan On Sentence Representations for Propaganda Detection: From Handcrafted Features to Word Embeddings André Ferreira Cruz, Gil Rocha and Henrique Lopes Cardoso JUSTDeep at NLP4IF 2019 Task 1: Propaganda Detection using Ensemble Deep Learning Models Hani Al-Omari, Malak Abdullah, Ola AlTiti and Samira Shaikh Detection of Propaganda Using Logistic Regression Jinfen Li, Zhihao Ye and Lu Xiao Cost-Sensitive BERT for Generalisable Sentence Classification on Imbalanced Data Harish Tayyar Madabushi, Elena Kochkina and Michael Castelle Understanding BERT performance in propaganda analysis Yiqing Hua Pretrained Ensemble Learning for Fine-Grained Propaganda Detection Ali Fadel, Ibrahim Tuffaha and Mahmoud Al-Ayyoub NSIT@NLP4IF-2019: Propaganda Detection from News Articles using Transfer Learning Kartik aggarwal and Anubhav Sadana Sentence-Level Propaganda Detection in News Articles with Transfer Learning and BERT-BiLSTM-Capsule Model George-Alexandru Vlad, Mircea-Adrian Tanase, Cristian Onose and Dumitru-Clementin Cercel Synthetic Propaganda Embeddings To Train A Linear Projection Adam Ek and Mehdi Ghanimifard