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Analyzing Political Discourse in On-line Social Networks

J.UCS Special Issue

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On-line Social Networks (OSN) have become a central point of the Internet. Hundreds of millions of users interact daily on the OSNs, producing and consuming large amounts of user generated data. The importance of the OSNs in the political discourse was promptly recognized during the 2008 USAs presidential campaign, where the usage of the digital communication channels by the democrats was one of the differential characteristics. Since then, OSNs have been recognized as an important channel to reach the target group and as a source of a trove of user generated information.

On-line Social networks present specific problems and issues during the data analysis process. These issues raise both from the demographic distribution of the users of the OSNs, the difference in the on-line political discourse and the unique technical characteristics of each network. Traditional techniques have to be adapted to tackle these unique issues of the OSNs, like the limited message length, the existence of malicious users or the demographic bias of the population; in order to take advantage of the real-time and large scale data available to be analyzed.

The purpose of this special issue is to collect innovative and high-quality research contributions regarding both the use of OSNs as a channel for political discourse and campaigns, and the usefulness of user generated data to assess and predict the political context. This special collect five high-quality contributions of this area.

In the first paper, entitled *"Generating Politician Profiles based on Content Analysis of Social Network Datasets"*, Klara Grčić, Marina Bagić Babac, and Vedran Podobnik describe a method to generate extended individual profiles for leading politicians of the European Union using their activity on Facebook. The authors use these profiles to perform a comparative analysis between the

European Commissioners and Croatian ministers, showing certain unexpected differences in their on-line behaviour. Finally, they propose a model for prediction of on-line political behaviour

In the second contribution, entitled *"Terrorism in the 2015 Election Period in Turkey: Content Analysis of Political Leaders' Social Media Activity"*, Ahmet Güneyli, Metin Ersoy, and Şevki Kralp conduct a case-study using the messages posted in Twitter between July and November 2015 by six political leaders in Turkey and focused mainly on those about terrorism. Using both a descriptive and qualitative approach, and a thematic content analysis the authors analyze the unique approach to terrorism of each one of the leaders.

In the third paper, entitled *"On Predicting Election Results using Twitter and Linked Open Data: The Case of the UK 2010 Election"*, Evangelos Kalampokis, Areti Karamanou, Efthimios Tambouris, and Konstantinos Tarabanis describe a method that combines Twitter data with Linked Open Data to predict election results. The authors evaluate their approach using the data from the UK elections of 2010.

In the fourth contribution, entitled *"Electoral Preferences Prediction of the YouGov Social Network Users Based on Computational Intelligence Algorithms"*, Sonia Ortiz-Ángeles, Yenny Villuendas-Rey, Itzamá López-Yáñez, Oscar Camacho-Nieto, and Cornelio Yáñez-Márquez study 25 classification algorithms to predict voting intentions on the United States primary presidential elections for 2016, taking as input the data sets generated by 1200 users of the YouGov OSN, as well as the answers they gave to an on-line study run by the American National Election Studies.

In the fifth paper, entitled *"Framework for Affective News Analysis of Arabic News: 2014 Gaza Attacks Case Study"*, Mahmoud Al-Ayyoub, Huda Al-Sarhan, Majd Al-So'ud, Mohammad Al-Smadi and Yaser Jararweh present two mayor contributions: a benchmark annotated dataset of Arabic news for affective news analysis along with a baseline methodology for the evaluation of future research in Arabic aspect based sentiment analysis, and an algorithm for the sentiment classification of Arabic news. To validate their approach the authors collected news posts and their related comments are collected from well-known Arabic news networks such as Al Jazeera and Al Arabiya during the 2014 Gaza attacks.

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