## **Special Session on:**

## **Computational Issues in Voting Advice Applications**

## **FOREWORD**

Voting Advice Applications (VAAs) are web applications, which are created to match voters' policy views with parties' or candidates' political positions and recommending a candidate or a party to a voter. VAAs are considered as an important tool to mobilize participation in elections, taking advantage of their online social network nature. A tangible result of VAAs is the datasets that are created and which usually contain dozens of research variables (demographics, vote prediction, self placement in political maps, social network formation, etc.) each one requiring exhaustive investigation. VAA datasets are extensively used by political scientists, but their utilization focuses mainly on strictly political science issues. Some, rare, exceptions simply confirm the above trend.

In 2014 the Directorate-General for Communication of the European Parliament (area of internet-based activities/online media – 2014) sponsored, through the Open Society Initiative for Europe (European Elections 2014), the EUVOX project (<a href="http://www.euvox2014.eu">http://www.euvox2014.eu</a>) in an effort to help citizens to select the political party that best matches their own policy preferences and enable them to have quick access to information about the positions of all parties in the 2014 elections to the European Parliament.

EUVOX was designed and implemented by a consortium of researchers based on Kieskompas (they had codesigned EU Profiler, winner of the 2009 eDemocracy award) and PreferenceMatcher, two experienced organizations in the field of VAAs that have designed many such tools across four continents, as well as country teams from all EU member states. I had the honor to be a member of the advisory board of the EUVOX effort. In addition to serving its primary aim, help European citizens to decide what to vote in that elections, EUVOX resulted in a huge amount of data (a total of 2 million users across the 27 EC counties filled in an online questionnaire that includes more than 100 variables), which can be exploited in numerous different fields, related to computer science, including artificial intelligence, information retrieval, data mining and social media analysis.

In an effort to mobilize the interest of computer scientists to the VAA platforms and data and aiming to establish VAAs as a research field in informatics I have proposed to the SMAP Steering Committee to organize a Special Session on "Computational Issues in Voting Advice Applications". This special session aimed to bring together researchers from different fields working on computational issues of VAAs including VAA design issues (database, coding, interface), dimensionality reduction and visualization, VAA data analysis, VAA social network analysis, intelligent vote recommendation, etc. Following a thorough review process, six papers, covering a broad spectrum of computational issues of VAAs, were selected and included in the conference proceedings. The quality of those papers and the topics covered therein (VAA data structures and architecture, VAA data filtering, alternative ways of vote recommendation, VAA social network analysis, estimation of main policy dimensions through VAA data) provide a solid background for new researchers who wish to enter this emerging research field.

I hope you will find this Special Session interesting and consider VAAs' computational issues in your future research activities!

Nicolas Tsapatsoulis, Associate Professor,

Social Computing Lab,

Dept. of Communication and Internet Studies,

Cyprus University of Technology.

