PLEAD 2012: Politics, Elections and Data

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ABSTRACT

What is the role of the internet in politics general and during campaigns in particular? And what is the role of large amounts of user data in all of this? In the 2008 U.S. presidential campaign the Democrats were far more successful than the Republicans in utilizing online media for mobilization, co-ordination and fundraising. For the first time, social media and the Internet played a fundamental role in political campaigns. However, technical research in this area has been surprisingly limited and fragmented. The goal of this workshop is to bring together, for the first time, researchers working at the intersection of social network analysis, computational social science and political science, to share and discuss their ideas in a common forum; and to inspire further developments in this growing, fascinating field. The workshop has Filippo Menczer as keynote speaker, it includes technical presentations of accepted papers and concludes with a panel discussion where scientists and media experts from different fields can interact and share views.

Categories and Subject Descriptors

H.4 [**Information Systems Applications**]: Miscellaneous; J.4 [**Social and Behavioral Sciences**]: Sociology; K.4.0 [**Computers and Society**]: General

General Terms

Algorithms, Experimentation, Human Factors, Measurement, Theory

Keywords

politics, elections, social media, Twitter, Facebook, computational political science

1. INTRODUCTION

The web has often been regarded as a liberating, deliberative and democratizing place. Empirical research, however, has shown that while there are many new instruments for communication and participation, online politics are but a reflection of the offline political landscape [7]. Online data is increasingly recognized as a rich source of data for studies that normally fall in the domain of social sciences [8, 10, 13].

Politicians worldwide have realized the power that social media carries when it comes to campaigning. Here, Twitter and Facebook are often on the frontline as they engage many users in political

virtual debates and, ultimately, mobilize them for grassroot movements. Online campaigning is generally thought to have played an important rule during the 2008 U.S. presidential elections [12, 11].

The workshop is intended as a venue for researchers with different backgrounds but a common interest in the new area of computational political science to meet and exchange ideas. We expect participants from the areas of Computer Science, Political Science, Information Science, Media Studies and more. Topics of interest include classifying users and content according to political leaning, quantifying the effect of political campaigns through online media, studying the effects of a "Daily Me" on political content consumption and using both social media and prediction markets for election predictions.

We believe that the diversity of research backgrounds and perspectives, combined with the varied nationalities of the participants will help us define a rich set of common research goals. The workshop is meant as the first in a series of meetings for researchers in the area.

2. WORKSHOP PROGRAM FORMAT

The workshop opens with a 1-hour keynote talk by Filippo Menczer entitled "The Diffusion of Political Memes in Social Media" [9]. Filippo presents ongoing work on the study of information diffusion in social media. The analyses in this keynote address polarization, cross-ideological communication, and partisan asymmetries in online political activities. His talk includes a model of the competition for attention in social media that helps to explain the dynamics of information diffusion, where a few ideas go viral while most do not. Following the keynote, there is a 20-minute overview of existing online tools for political analysis. The presentation features the Twitter Political Index[1] for sentiment analysis on Twitter concerning Barack Obama and Mitt Romney, PredictWise[2] for using prediction markets to forecast the election, Political Search Trends[3] to identify trending political issues with a leaning from web search logs, Truthy[4] to study the spread of political memes on Twitter, as well as several other live demos. The main part of the technical program consists of six presentation of accepted papers (see below). Each presenter is alloted a 20 minute with additional 5 minutes for discussion. All accepted papers underwent peer-review by at least three program committee members. At the end of the workshop there is a panel discussion with representatives from academia, social media companies and news media. The

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[1] https://election.twitter.com/

[2] http://www.predictwise.com/

[3] http://politicalsearchtrends.sandbox.yahoo.com/

[4] http://truthy.indiana.edu/

panel covers a range of topics related to the workshop such as noteworthy examples of actual political future predictions using social media, rather than mere retro-fitting, or the impact of constantly monitoring and measuring public opinions on the web. Does it strengthen grassroot democracy by giving a louder voice to every citizen, or does it, by amplifying every single twist, weaken political stability and create a more polarized society?

3. ACCEPTED PAPERS

The following workshop papers have been accepted for publication and are presented by one of the authors.

Political Polarization and Popularity in Online Participatory Media: an Integrated Approach: The paper introduces a framework for measuring the online popularity of political campaigns, illustrated by a study of collective emotions and video virality in a Youtube video dataset. It then proposes reproducing media popularity patterns using ABMs (agent-based models) and delves into how ABMs used in connection with voting advice applications (VAAs) may allow testing content virality or user behavior assumptions as well as improve VAAs for real-world users. [6]

Just 140 Characters to Communicate with Constituents: Italian Members of Parliament on Twitter: The study explores the use of Twitter by the members of the Italian parliament. Adoption of Twitter is found to be influenced by age, level of technological literacy, and party leader adoption patterns. Twitter influence is found to mirror real-life status with leaders less active but more influential than ordinary members. However, active ordinary members successfully use Twitter to raise their profile and cultivate useful relationships. [1]

Party Cohesion in Presidential Races: Applying Social Network Theory to the 2011 Preprimary: The paper proposes the general task of analyzing patterns in the funding of candidates for political office in order to discern information about the state of the respective party. A first experiment on analyzing individual contributions data for the 2012 Republican Party preprimary shows promise: the existence of specific ideological fractions in the party and the emergence of Mitt Romney as the most likely nominee are supported by the data. [5]

Opinions Network for Politically Controversial Topics: The paper introduces OpinioNetIt, a system for mining opinions held by stakeholders on politically controversial topics. The opinions are stored in a faceted knowledge base and can be used for political opinions analysis, search and summarization. Specific use cases include: heat maps of political bias, discovery of dissenters or flip-flopping politicians. [2]

French Presidential Elections: What are the Most Efficient Measures for Tweets?: The paper focuses on the task of characterizing political communities by mining and tracking topics from Twitter updates sent by their members. A set of topic mining procedures are proposed and evaluated in the context of tweets sent during the 2012 French presidential and legislative elections. [4]

The Price of Precision: Voter Microtargeting and its Potential Harms to the Democratic Process: The paper explores the unintended effects of voter microtargeting (e.g., the resulting focus on divisive, wedge issues, voter disenfranchisement, increased partisanship). It then introduces Soap Box, a collaborative project to develop a website acting as a clearinghouse for targeted political advertising and discusses the limits of such an approach to combat the worrisome aspects of microtargeting. [3]

4. WORKSHOP ORGANIZERS

Ingmar Weber is a research scientist at Yahoo! Research in Barcelona, Spain. His research covers a wide subject area from classical information retrieval, to sponsored search, to interdisciplinary studies in web science. He led the development of the Political Search Trends demo which assigns a political leaning to search queries. He did his Ph.D. at the Max-Planck Institute for Informatics working on CompleteSearch, which is now the default search engine for DBLP.

Ana-Maria Popescu is a research scientist consulting for early-stage social startups. Previously, she was a text mining scientist at Yahoo! Labs where she most recently worked on social media mining and user modeling; she co-led the Twitter analytics effort for the Yahoo! News Election 2012 coverage. She obtained her Ph.D. in 2007 from University of Washington with a thesis in information extraction from the Web.

Marco Pennacchiotti is an applied scientist and principal engineer at eBay, where he leads the science on social media. Before joining eBay in June 2012, he was a research scientist at Yahoo! Labs, focusing on text mining, information extraction applied to big data and social media. At Yahoo!, he wrote papers focusing on user-profiling also applied to the political domain. Marco obtained a Ph.D. in natural language processing and information extraction in 2007 from the University of Rome, Italy.

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