

Reports on the 2013 Workshop Program of the Seventh International AAI Conference on Weblogs and Social Media

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■ *The Workshop Program of the Program of the Seventh International AAI Conference on Weblogs and Social Media was held July 11, 2013, in Cambridge, Massachusetts. The program included four workshops, Computational Personality Recognition (Shared Task) (WS-13-01), Social Computing for Workforce 2.0 (WS-13-02), Social Media Visualization 2 (WS-13-03), and When the City Meets the Citizen (WS-13-04). This report summarizes the activities of the four workshops.*

Computational Personality Recognition (Shared Task)

The Workshop on Computational Personality Recognition allowed participants to compare the results of their systems on a common benchmark. Unlike competitive shared tasks, the workshop did not focus just on performance, but rather on discovering which feature sets, resources, and learning techniques are useful in the extraction of personality from text. Organizers provided two gold-standard labeled data sets (released 1 February 2013): `essays.zip`, a large data set of 2400 stream-of-consciousness texts labeled with personality; and `mypersonality.zip`, consisting of approximately 10,000 Facebook status updates of 250 users, plus Facebook network properties (including network size, betweenness centrality, density, and transitivity) labeled with personality. Participants were required to use at least one of the data sets provided by the organizers for their experiments; provide the files used for the experiments; and submit a short paper reporting all the information about features, resources, and techniques used in the experiments, and discussing results.

The workshop consisted of eight participant teams who exploited a wide range of lexical resources and learning techniques. One team achieved a very high and promising result.

François Mairesse underlined the fact that, until now, performances of the available personality-recognition systems were not good enough to be useful for practical tasks. He listed possible fields of application for personality recognition: virtual assistants, human-computer interaction, health care (that is, mood detection, personality disorders), recommender systems and market segments (customer profiling). He suggested that we learn computational models mapping the big five personality domains to the dimensions of interest. Daniel Gatica-Perez presented a work on personality recognition from video. He used observer ratings in place of self-assessments to retrieve personality labels. He found connections

among verbal and nonverbal cues and big five impressions.

After the poster session, Dejan Markovikj, who obtained the best result with his system, presented his work through Skype. The workshop concluded with a summary of the results and a discussion of the next challenges in personality-recognition research, including running personality recognition in languages other than English, comparing performances that can be achieved exploiting different personality-assessment tests; and finding new applications for computational personality recognition (such as sentiment analysis, deception detection, and mood detection).

Fabio Celli, Fabio Pianesi, David Stillwell, and Michael Kosinski served as cochairs of this workshop. This report was written by Fabio Celli. The papers of the workshop were published as AAAI Technical Report WS-13-01.

Social Computing for Workforce 2.0

The Social Computing for Workforce 2.0 workshop brought together researchers and practitioners to introduce new tools or methods that address workforce management issues, advance our understanding of workforce issues through qualitative and quantitative empirical studies, and discuss the impact and opportunities that recent trends such as social, mobile, and crowdsourcing have on the workforce. Social technologies used in the workplace are making it easier for workers to perform activities such as find information, share information, connect to others, find experts, find answers to questions, and infer workplace affect and emotion.

Social computing research in this area has advanced our understanding of technology in the workplace, but there remain several areas ripe for further investigation. This workshop sought to address the issues and challenges of new ways of working, by bringing in insights from researchers from multiple disciplines, as well as encouraging diverse methodological approaches to tackling them. As work becomes increasingly social and mobile, it is time-

ly to address how these trends can create a smarter workforce.

Jonathan Ferrar, vice president of IBM Smarter Workforce, kicked off the workshop with a keynote speech that touched on the future of work. He mentioned how the global workforce is changing because of demographic shifts, the rise of emerging economies as a source of future talent as their skills develop, and greater connectivity and use of social tools. He stressed that work can be reinvented by using both mathematical and behavioral science analytics to enhance human judgment, eliminate hierarchies by implementing tools that empower the collective intelligence of an organization, forming a true labor market built from long-term needs and the career desires of the individual, and creating radical transparency across the organization by using social networks to create constant collaboration.

Several attendees presented summaries of their work covering topics such as enterprise crowdfunding, voice of employees, gamification in the workplace, methods of predicting and recommending skills, and the use of social media by sellers. Sven Laumer presented the closing keynote highlighting the research of his team investigating the dark side of social media where they conducted an experiment comparing social media with email in relation to employee stress.

Attendees found the breakout groups to be most useful. Breakout groups were determined by doing a card-sorting exercise of topics of interest to attendees as expressed through Post-it notes. Two overall themes emerged: data and talent. This led to participants self-selecting to join one of two breakout groups on these two themes.

The first breakout group focused on the rise of unstructured data with the advent of social media and its implications for the workforce. In relation to this topic, participants discussed the different lenses used to understand data, starting from traditional social science methods to computational social science methods, and wondered whether there are other lenses we should use. Inherent in the discussion was the understanding that one lens is-

n't good for everything, and that we may need to evolve our lenses. The second major issue discussed was the ethics of analyzing employee data and respecting employee privacy. Just because social media content generated by employees is public does not mean organizations can mine and analyze it, and some countries have legal restrictions preventing this. The final major issue discussed in this breakout group was the impact of culture and how it is important to keep in mind that differences observed in organizational uses of technology could be explained by differences in culture.

The second breakout group focused on talent management in the enterprise as it relates to skills and expertise. In particular, participants discussed the role of social systems in producing data that can be used for more effective skill and expertise matching. In the context of leveraging social data, two critical challenges were brought up. Without proper engagement of the workforce, the data can only be used for a subset of the population. Second, in order to do successful skills and expertise matching, simply using content-based algorithms is not sufficient. Cultural and personality issues are often an important factor when it comes to finding the right person for the job. The second big topic discussed was generational differences in the workforce and how knowledge transfer between generations can be facilitated through social technologies. In particular, how can older generations be effectively enabled to use social media to allow for a better exchange of knowledge across the generational divide, for example, by forming interdisciplinary, cross-generational teams?

At the conclusion of the workshop, participants expressed their interest in working together in areas of mutual research interest and their willingness to participate in future workshops held at future conferences.

N. Sadat Shami, Werner Geyer, Munmun De Choudhury, Andreas Eckhardt, and Sven Laumer served as coorganizers of the workshop. This report was written by N. Sadat Shami and Werner Geyer. The papers of the workshop were published as AAAI Technical Report WS-13-02.

Social Media Visualization 2

Visualization and visual analytics approaches help with hypothesis formation as well as the explanation and presentation of trends in social media data sets. Understanding content and sentiment in this data is important for researchers in the humanities, social sciences, government, and industry. In the Second AAAI ICWSM Workshop on Social Media Visualization, participants explored visual approaches that support tasks that users in these areas undertake while exploiting the analytics and data-mining approaches of the ICWSM community.

The workshop opened with a keynote by Hui Su of IBM Research Watson, who highlighted applications and implications of visual analytics technology as applied to social media data sets. His keynote was followed by three presentations that primarily focused on visual analytics approaches for the analysis of Twitter data. Robert Patton presented a visual analytics system to gauge community resilience and demonstrated the system on Twitter data collected from Hurricane Sandy. Wenwen Dou presented a system that combines computational methods with visual analytics technology in order to make sense of collective views in the Occupy Movement. A third oral presentation, by Nicholas J. Pioch, discussed visual thinking algorithms for visualizing social media memes. This report was not published in the technical report. The three presentations were followed by a short discussion.

Scale continued to be a major theme of the workshop. Many of the workshop papers had impressive results that helped with the analytics of large data sets, and future collaborations with members of the data-mining community should be encouraged. One of the open challenges that remains is moving toward a near real time analysis of this data as this constraint is often a desirable feature by our end users. Furthermore, closer collaboration with researchers in the application areas of this multidisciplinary community should be encouraged.

Daniel Archambault (Swansea University), Eser Kandogan (IBM Research),

and Martin Harrigan (Betapond) served as cochairs for the workshop. This report was written by Daniel Archambault. The papers of the workshop were published as AAAI Technical Report WS-13-03.

When the City Meets the Citizen

Social media analysis can play a key role in providing insights into people's activities, opinions, and day-to-day lives. When they are geolocated, these user-generated information streams become a unique opportunity to understand the rhythms and tenors of a city and its citizens. By applying computational, social science, and humanities methods to social media data such as photos, tweets, and check-ins, researchers are now beginning to conceive of new methodological and theoretical frameworks not only to extract local insights but also, more importantly, to better understand cities and their residents.

This year's workshop focused on understanding the various ways in which social media data can be used to produce knowledge about cities that supports citizen engagement. The workshop brought together researchers from various backgrounds including computer scientists, industry professionals, academic researchers, urban planners, and digital humanities researchers who presented their work as well as worked together to explore questions relating to social media, big data, citizen engagement, and the creation and meaning of smart cities.

Six papers were presented covering topics that included how social media can be used to monitor hyperlocal emergency events, the biases and limitations of using social media data for urban planning, and various methods employed to discover and maintain local communities of interest through the study of digital activity. In addition, workshop participants gained hands on experience with social data sets as part of a brainstorming "data hacking" session. The "data hacking" session involved two groups of participants collaboratively tackling a specific social media data set throughout the day. The workshop concluded with a presenta-

tion by each group showcasing their results.

In addition, the workshop facilitated a stimulating discussion during a plenary that included three guest speakers: Ethan Zuckerman (director of the Center for Civic Media at MIT and principal research scientist at the MIT Media Lab), Sarah Williams (assistant professor of urban planning and the director of the Civic Data Design Lab Project at MIT School of Architecture and Planning School) and Eric Gordon (fellow at the Berkman Center for Internet and Society at Harvard University and associate professor in the Department of Visual and Media Arts at Emerson College). After each of the speakers presented their current projects they were engaged in a discussion (moderated by David R. Millen) that focused on questions regarding big data, smart cities, and civic participation.

Raz Schwartz and Elizabeth Daly served as cochairs of this workshop. This report was written by Raz Schwartz, Elizabeth M. Daly, David R. Millen, Ingrid Erickson, Brian Keegan, and Germaine Halegoua. The papers from the workshop were published as AAAI Press Technical Report WS-13-04. **Daniel Archambault** is a lecturer in the Department of Computer Science at Swansea University, UK.

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Germaine Halegoua is an assistant professor at the University of Kansas.

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