Introduction to the proceedings of the BCS SGAI Workshop on Social Media Analysis 2013

Mihaela Cocea[1], Mohamed Gaber[2], Nirmalie Wiratunga[2], and Ayse Göker[2]

[1] School of Computing, University of Portsmouth, UK
mihaela.cocea@port.ac.uk
[2] School of Computing & Digital Media,
Robert Gordon University, Aberdeen, UK
{m.gaber1, n.wiratunga, a.s.goker}@rgu.ac.uk

Social media websites such as Twitter, Facebook, Instagram, and YouTube continue to share user-generated content on a massive scale. Users attempting to find relevant information within such vast and dynamic volumes risk being overwhelmed. In response, efforts are being made to develop new tools and methods that help users make sense of and make use of social media sites. In this workshop we will bring together commercial and academic researchers to discuss these issues, and explore the challenges for social media mining.

The current expansion of social media leads to masses of affective data related to peoples emotions, sentiments and opinions. Knowledge discovery from such data is an emerging area of research in the past few years, with a potential number of applications of paramount importance to business organisations, individual users and governments. Data mining and machine learning techniques are used to discover knowledge from various types of affective data such as ratings, text or browsing data. Sentiment analysis techniques have grown tremendously over the last few years, addressing applications of paramount importance. Obama's presidential election campaign and Gap logo change are two of these examples. Business organisations, individuals and governments are keen on extracting what people think of a particular product, a newly introduced governmental policy, etc. Applications are growing rapidly and so are the techniques. However, the gap between techniques and applications is still an issue that needs to be addressed.

All submitted papers received two or three review reports from Program Committee members. Based on the recommendations of the reviewers, 4 full papers have been selected for publication and presentation at BCS SGAI 2013. The selected papers address a variety of research themes, ranging from the importance of domain-specific lexicons when analysing social media text to theme extraction and combining text with multimedia sources for opinion mining.

The paper "Domain-Based Lexicon Enhancement for Sentiment Analysis" by Aminu Muhammad, Nirmalie Wiratunga, Robert Lothian and Richard Glassey propose an approach for learning a domain-focused sentiment lexicon. They show that by combining a general lexicon with a domain-focused one better results are obtained for sentiment analysis on Twitter text.

The paper "Towards Passive Political Opinion Polling using Twitter" by Nicholas A. Thapen and Moustafa M. Ghanem investigated automatic analysis of political tweets.

They looked at sentiment analysis of tweets from UK members of parliament towards the main political parties, as well as voters' tweets analysis for inferring voting intentions. In addition, they conducted an automatic identification of key topics discussed by members of parliament and voters.

The paper "Mining Newsworthy Topics from Social Media" by Carlos Martin, David Corney, Ayse Göker, and Andrew MacFarlane explore the real-time detection of newsworthy stories by looking at "bursts" of phrases. This allows the identification of emerging topics. An interesting evaluation methods is used, where the ground truth is established from news stories that were published in the mainstream media, thus ensuring their newsworthiness.

The paper "Multimodal Sentiment Analysis of Social Media" by Diana Maynard, David Dupplaw, and Jonathon Hare combines mining of text and of multimedia sources such as images and videos for opinion mining. The analysis of multimedia content complements the opinion extraction from text by resolving ambiguity and providing contextual information.

The papers in these proceedings addressed various aspects of social media analysis, covering different techniques for analysis, as well as different applications. They illustrate the advancement of research in this field and the refinement of techniques to suit the application domains.