#Microposts2016 – 6th Workshop on 'Making Sense of Microposts'

Big things come in small packages

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1. INTRODUCTION

#Microposts2016, the 6th workshop on *Making Sense of Microposts*, is summarised by the sub-theme: *big things come in small packages*. The workshop serves as a forum to discuss and promote research on the generation, analysis and reuse of *Microposts* – small chunks of information published on social media and messaging platforms. Low effort and cost to publish Microposts gives a voice to all, across differences in expertise, socio-cultural, generational and economic spheres, covering a wide swathe of topics, posted in the moment and on the go, during events, crises and personal experiences. While the usual suspects, including Twitter, Facebook, Instagram and Pinterest continue to dominate, especially as services are merged or shared across platforms, newer players such as WhatsApp, Vine, Meerkat andYik Yak are growing in popularity, with increased access to fast, high capacity networks and advanced small, personal devices.

#Microposts2016 solicited participation from Computer Science and other relevant fields, with a focus on interdisciplinary work. Starting in 2015, the workshop includes a track dedicated to encouraging research employing methods for analysis of Microposts in the Social Sciences.

2. WORKSHOP SCOPE

Topics of interest were grouped into three themes:

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MAKING SENSE / UNDERSTAND. Focusing on the human in Micropost data generation and analysis, this theme looks to understand how situation and context drive individual and collective publication of Microposts, targeted at an individual, the wider public or some other entity, e.g., government or a cause. This covers interdisciplinary work driven by research in Social & Computational, Information and Web Sciences that leads to deeper understanding of Microposts and how their content influences the contribution of Microposts to, among others: Education & citizen empowerment; Collective awareness; Data journalism.

DISCOVER. The extraction of information content from Microposts and subsequent analysis contribute to the discovery of patterns and trends in the data. This information is key to further knowledge discovery and application, using a number of approaches including: Content analysis; Data mining; Emergent semantics; Community detection.

APPLY. Applications papers and case studies describing systems employing Micropost data, this includes tools built to support the generation and sharing of Microposts using a variety of devices and media, piggybacking on other communication methods including SMS/MMS and even radio. Areas of interest include: Collective intelligence; Personalisation, profiling & recommendation; Crises; Politics.

3. STRUCTURE

The workshop was opened with a keynote setting the theme for the year, followed by presentations in the Main and SocSci tracks. An invited talk by Mihajlo Grbovic (Yahoo! Labs) discussed gender and interest prediction based on user interaction on Tumblr. The workshop features a poster session, to encourage discussion of emerging and salient topics. #Microposts2016 closed with a selection of short presentations from the NEEL challenge and an award ceremony.

3.1 Main Track

The main track accepts work in any field on Micropost generation, reuse and analysis, and sees a good range of approaches in tackling research on the topic.

The best paper award for this track was sponsored by the *MK:Smart* project [1], a large, collaborative initiative

for developing innovative solutions by mining vast amounts of data. MK:Smart is part-funded by HEFCE (the Higher Education Funding Council for England) and led by The Open University. This award is to encourage research on novel applications based on data extracted from Microposts.

3.2 Computational Social Sciences Track

As Microposts represent traces of social interactions and communication, interdisciplinary work from the field of Computational Social Science, by focusing on human and social factors, is a key contributor to making sense of Microposts. To encourage more interaction with this field and therefore further enrich research on Microposts, for the second time the workshop includes this special track.

The track was sponsored again by *GESIS*, the Leibniz Institute for the Social Sciences [2]. GESIS is a research infrastructure institute funded by the German state to provide services for the Social Sciences, including work in the intersection between this field and Computer Science. As in 2015 a paper submitted to the main track was found to cross the boundary between the two fields, and was therefore reviewed by researchers in both. Such work reinforces the importance of GESIS' sponsorship of the #Microposts workshop: to highlight the importance of combining the different perspectives of experts in these two disciplines, to better understand social phenomena through computational methods, highly relevant for online communication via Microposts.

3.3 The NEEL Challenge

The Named Entity rEcognition and Linking (#Microposts NEEL) Challenge is increased in complexity each year to tackle a new challenge in automatic extraction of content from large scale Micropost data, followed by enrichment with Semantic Web resources. The 2016 challenge was chaired by Giuseppe Rizzo (ISMB, Italy) and Marieke van Erp (VU Amsterdam, the Netherlands).

#Microposts NEEL 2016 saw 33 expressions of interest, with 6 progressing through to the final stage. The challenge task builds on the previous year's and reuses the 2015 dataset. Participants were also encouraged to open their solutions to the community.

The 2016 NEEL Challenge best submission award was sponsored by the *FREME* project [3], whose aim is to build an open, commercial-grade framework for multilingual, semantic enrichment of digital data. This award is to encourage competition and support attendance at the workshop; in 2016 also rewarding the most reproducible submission.

3.4 Submissions

We received 14 submissions from institutions in 11 countries across Europe, the Middle East, Asia and the Americas. With the move toward more open data we are pleased to find a number of submissions who have made their data, tools and/or research results open – links to these are provided on the #Microposts2016 website [6]. We also aim to publish the complete proceedings as a single volume using an online, open-access publication service.

Of the 8 submissions to the Main and SocSci tracks, 3 long papers and 2 posters were accepted. In the main track Lim *et al.,* take a novel approach in *ClaimFinder: A Framework for Identifying Claims in Microblogs* toward automatic analysis of the 4th 'V' of "Big Data" – *veracity*, a topic of increasing importance in NLP research on social media. The

study aims to validate claims in microblogs through open relation extraction and clustering. *Birds of a Feather Tweet Together: Computational Techniques to Understand User Communities in Social Networks* by Kurka *et al.,* analyses homophily in Twitter using automatic community detection and topic analysis. The study of information diffusion within the different follower communities of a popular Brazilian news Twitter account reveals topics specific to each.

In the SocSci track we found a good example of the intersection between Computer Science and Social Science in *Comparing Social Media and Traditional Surveys Around the Boston Marathon Bombing* by Buntain *et al.* The study employs methods from both areas to show how analysis of tweets may complement survey data in a study of the 2013 Boston Marathon bombings. The poster *CEOs on Twitter* by Oh *et al.,* studies CEOs visible on social media, to measure the impact of activity on Twitter on financial compensation and corporate performance. Stier's poster *Studying the Role of Elites in U.S. Political Twitter Debates* presents exploratory analysis of the influence exerted by "elites" in US politics through debates communicated on Twitter.

Five NEEL challenge submissions were accepted for presentation, 1 as a poster. The final rankings for the quantitative analysis were presented at the workshop.

4. ACKNOWLEDGMENTS

5. REFERENCES

[1] MK:Smart. `http://www.mksmart.org`.
[2] GESIS. `http://www.gesis.org`.
[3] FREME. `http://www.freme-project.eu`.
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[5] EDSA. `http://edsa-project.eu`.
[6] #Microposts2016 website.
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