

Making Sense of Microposts (#Microposts2015) Social Sciences Track

Danica Radovanović*
Faculty of Technical Sciences,
University of Novi Sad, Serbia
danica@danicar.org

Katrin Weller*
GESIS Leibniz Institute for the
Social Sciences, Germany
katrin.weller@gesis.org

Aba-Sah Dadzie*
Knowledge Media Institute,
The Open University, UK
aba-sah.dadzie@open.ac.uk

ABSTRACT

For the first time in its five year history the #Microposts workshop features a designated Social Science track. This paper introduces this new track by situating it within the overall workshop objectives. It highlights the importance of interdisciplinary studies in the attempt to make sense of Web user activities in general, and in the generation and consumption of Microposts in particular. This paper provides examples of related work in the field, such as Computational Social Science, reviews previous contributions to the #Microposts by the Social Science research community, and introduces the two papers presented in the track.

Keywords

Microposts, Social Science, Web Science, Computational Social Science, Internet science, social media, user-generated content, online communication, Internet research

1. INTRODUCTION

The Internet is not just a static set of tools or affordances for a specific set of user-defined purposes. Rather, it also represents a rapidly evolving set of ways to configure one's social life. That is to say, the Internet today enables different relationships within the basic dimensions of social and cultural dynamics and organisation [4]. New media and technology denote embodiments of socio-cultural relationships that in turn shape and structure our possibilities for social action, education and cultural expression [1, 6] across all generations and walks of life. The myriad ways that social lives can be (re-)arranged through various types of media and communication forms however present a challenge for researchers from multiple disciplines.

It can be postulated that social dynamics facilitate new forms of communication structures in social lives. One of

*All authors made equal contributions

Copyright © 2015 held by author(s)/owner(s); copying permitted only for private and academic purposes.
Published as part of the #Microposts2015 Workshop proceedings, available online as CEUR Vol-1395 (<http://ceur-ws.org/Vol-1395>)

#Microposts2015, May 18th, 2015, Florence, Italy.

those structures present *Microposts* – each a small, brief message, theme or a single thought, quick and easy to publish, and that, posted from a variety of platforms and by very large numbers of individuals with as many viewpoints and interests, collectively provide a rich source of information and opinion about a range of topics. Microposts present a dominant forum in social networks, micro-blogging services and virtual communities, and have become of socio-technological value. In recognition of this, the #Microposts workshop was born, to provide an avenue for different disciplines to come together to *make sense of Microposts*, to identify why they have become and remain a significant means of communication, how the phenomenon impacts its users and the wider society, and how end users today, both the technology-rich and those digitally disadvantaged, make use of the platform and consume the rich content generated in their social and working lives.

2. THE SOCIAL SCIENCES IN THE ANALYSIS OF MICROPOSTS

Recent years have brought about an increasing number of interdisciplinary approaches, between computer science and social sciences, often also referred to as *Computational Social Science* [8]. Computational Social Science uses computational methods to study social behaviour, e.g., by developing computational approaches that consider empirical methods and theories from social sciences, and by exploring new kinds of data to learn about social phenomena [19]. Different workshops and events are currently being organised in order to discuss new approaches in the field of computational social science and exchange useful approaches as well as experience with new datasets. These include the *International Conference on Computational Social Science in Helsinki*¹, to be held in June 2015. The importance of these connections across the disciplines are now recognised widely; interestingly, while the NEEL (Named Entity Recognition and Linking) Challenge², which forms part of the #Microposts workshop, typically attracts a select group, due to its specific focus, a social sciences researcher in 2015 tweeted from the WWW'2015 conference: “An effective named entity recognition for Twitter would be invaluable for social scientists too. Go NEEL #Microposts2015 guys!”³.

In trying to make sense of Microposts, researchers may ex-

¹<http://www.iccss2015.eu>

²<http://www.scc.lancs.ac.uk/microposts2015/challenge>

³Fabio Giglietto [fabiogiglietto] (1:42 PM – 18 May 2015 Tweet) Retrieved from <http://bit.ly/1FqJTA0>

plore and apply a variety of approaches. The proceedings of the previous #Microposts workshops prove this, as they already include contributions from various academic backgrounds, such as computer science, social sciences, sociology, digital ethnography, psychology and linguistics. In 2013, for instance, Vanin *et al.*, [21] in *Some Clues on Irony Detection in Tweets*, presented a mixed methods study to counter a challenge in automated analysis – interpretation of the particular context, including tweeter style or personality, and even subtleties unique to specific languages. In 2012, Radovanović & Ragnedda [12] presented a study on *Small Talk in the Digital Age: Making Sense of Phatic Posts*, in which they discussed the role of Microposts in social, dynamic communication on the Web, and the value in this medium for end users, in terms of content and for driving the conversation itself. In 2011, the first year in which the workshop was held, Škilters *et al.*, [16] in *The Pragmatics of Political Messages in Twitter Communication*, carry out detailed content analysis of the participants in the 2010 Latvian parliamentary elections, to identify pragmatic patterns in political communication, based on the identities of individuals and (virtual) communities. In this first workshop, also, Weller *et al.*, [22] in *Citation Analysis in Twitter: Approaches for Defining and Measuring Information Flows within Tweets during Scientific Conferences*, examine a number of features in information exchanged on Twitter during scientific conferences, to provide, within webometrics, an alternative source of citations.

It has always been an aim of the workshop series to bring together computer scientists and researchers from other disciplines, including social scientists. For this reason, we have also sought to include guest speakers with work spanning Computer Science and Social Sciences, including that by Greg Ver Steeg [17] on *Information Theoretic Tools for Social Media* in 2012, Daniele Quercia [11] on *Urban*: Crowdsourcing for the good of London* in 2013, and Markus Strohmaier [18] on *Computational Social Science and Microblogs – The Good, the Bad and the Ugly* in 2014. To highlight even further this objective, the #Microposts2015 workshop [23] features an explicit social sciences track in addition to the main track. By including this track and publishing a specific call for papers for social scientists, we were able to recognise the different publication practices that are one of the current challenges for successfully bringing together researchers from different disciplines.

2.1 Track Sponsor: GESIS

User-generated content and social media data are one major source in computational social science. For example, Microposts from social media platforms can provide new insights into political communication around elections [10, 7], political activism [9, 20] or disaster response [2]. *GESIS*, the Leibniz Institute for the Social Sciences [24], is a research infrastructure and service provider for the social sciences. GESIS hosts one of the first departments in Computational Social Science in Germany, where interdisciplinary researchers develop algorithms and theories for studying social phenomena based on Web data and also organise workshops and training opportunities. As part of the engagement in supporting social scientists in this new field, GESIS is also sponsoring the prize for the best social science paper at the 2015 #Microposts workshop.

3. THE #MICROPOSTS2015 SOCIAL SCIENCES TRACK

For the first dedicated Social Science track in the #Microposts series, three submissions were received, with an additional two from the main track crossing the boundary between this and the main track. Of these, two papers out of the first three were accepted for presentation for the track.

The award for best submission went to the paper *To Be or Not to Be Charlie: Twitter Hashtags as a Discourse and Counter-discourse in the Aftermath of the 2015 Charlie Hebdo Shooting in France* by Giglietto & Lee [5]. Written in the wake of the shooting in Paris, this paper provides one of the first studies of Twitter users' reactions to the event, and examines the human reaction on Twitter, expressing solidarity with the victims in different ways. The analysis examined the viewpoint of tweeters who appeared to oppose what was considered the norm as an expression of solidarity, in how they chose to express their grief and sympathy, and also resistance, using an expression that reinforced their identity with #JeNeSuisPasCharlie, in contrast to the spontaneously derived #JeSuisCharlie hashtag.

Coelho, Lapa, Ramos & Malini [3] in *A Research Design for the Analysis of Contemporary Social Movements*, looked at political, social empowerment in today's digital culture, through discursive analysis of Microposts. An important contribution of their qualitative study is to help to develop guidelines for teachers, to enable effective, critical appropriation of the data generated on social networks by net activist groups. The aim is to support education of young people, to encourage participation in the social freedom and the socio-political agenda.

Other papers addressing civil and political activism, and the analysis of data generated as a result, due to citizen empowerment and social cohesion, or, in contrast, diversive political activity, were submitted to both the social sciences and the main track. The call for papers highlighted other key topics, some of which also overlapped with the call for the main track. These included data journalism, collective awareness, citizen empowerment and education, and psychological aspects of Micropost-based interactions. Additional topics of particular importance to social science research include inequality in access to and the use of digital media, and how Micropost-based services have resulted in the emergence of alternative social and communication dynamics. The perspectives taken and the approach to data analysis clearly differed from the main track, with the social sciences track focusing not just on data content, but also on the human element that influences the publishing of Microposts, and how its content may be subsequently appropriated in the modern, digital world. We believe the overlap and divergence in approaches reinforces the need for the two fields, along with other relevant disciplines, to work in tandem in the analysis of Micropost data, allowing the different lenses through which each field works to result in increasingly richer analysis of this very diverse and constantly growing data set.

Acknowledgments

Danica Radovanović is an Internet researcher, who graduated from the University of Novi Sad, after research during

her PhD as a Chevening Scholar at the Oxford Internet Institute. Katrin Weller works at the GESIS Leibniz Institute for the Social Sciences and is currently funded by the John W. Kluge Center at the Library of Congress through a fellowship in Digital Studies. Aba-Sah Dadzie is a visiting researcher at KMi, the Open University, and is working on the EU project EDSA (no. 643937).

4. REFERENCES

- [1] W. Bijker, T. Hughes, and T. Pinch. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. MIT Press, 1987.
- [2] A. Bruns and J. Burgess. Crisis communication in natural disasters: The Queensland floods and Christchurch earthquakes. *Twitter and Society*, pages 373–384, 2014.
- [3] I. C. Coelho, A. Lapa, V. Ramos, and F. Malini. A research design for the analysis of contemporary social movements. In Rowe et al. [14], pages –.
- [4] W. H. Dutton and G. Blank. Cultures of the internet: Five clusters of attitudes and beliefs among users in Britain. Technical report, OII Working Paper, Oxford Internet Surveys (OxIS) Project, February 2014.
- [5] F. Giglietto and Y. Lee. To Be or Not to Be Charlie: Twitter hashtags as a discourse and counter-discourse in the aftermath of the 2015 Charlie Hebdo shooting in France. In Rowe et al. [14], pages –.
- [6] M. Ito. *Hanging Out, Messing Around, Geeking Out: Living and Learning with New Media*. MIT Press, 2009.
- [7] A. Jungherr, P. Jürgens, and H. Schoen. Why the Pirate Party won the German election of 2009 or the trouble with predictions: A Response to Tumasjan, A., Sprenger, T. O., Sander, P. G., & Welpe, I. M. ‘Predicting Elections With Twitter: What 140 Characters Reveal About Political Sentiment’. *Social Science Computer Review*, 30(2):229–234, 2012.
- [8] D. Lazer, A. Pentland, L. Adamic, S. Aral, A.-L. Barabási, D. Brewer, N. Christakis, N. Contractor, J. Fowler, M. Gutmann, T. Jebara, G. King, M. Macy, D. Roy, and M. Van Alstyne. Computational Social Science. *Science*, 323(5915):721–723, 2009.
- [9] G. Lotan, E. Graeff, M. Ananny, D. Gaffney, I. Pearce, and d. boyd. The Arab Spring – the revolutions were tweeted: Information flows during the 2011 Tunisian and Egyptian revolutions. *International Journal of Communication*, 5(0), 2011.
- [10] H. Moe and A. O. Larsson. Untangling a complex media system. *Information, Communication & Society*, 16(5):775–794, 2013.
- [11] D. Quercia. Urban: Crowdsourcing for the good of London. In *Proc., 22nd International Conference on World Wide Web (WWW ’13 Companion)*, pages 591–592, 2013.
- [12] D. Radovanović and M. Ragnedda. Small talk in the digital age: Making sense of phatic posts. In Rowe et al. [13], pages 10–13.
- [13] M. Rowe, M. Stankovic, and A.-S. Dadzie, editors. *Proceedings, 2nd Workshop on Making Sense of Microposts (#MSM2012): Big things come in small packages, Lyon, France, 16 April 2012*, April 2012.
- [14] M. Rowe, M. Stankovic, and A.-S. Dadzie, editors. *Proceedings, 5th Workshop on Making Sense of Microposts (#Microposts2015): Big things come in small packages, Florence, Italy, 18th of May 2015*, May 2015.
- [15] M. Rowe, M. Stankovic, A.-S. Dadzie, and M. Hardey, editors. *Proceedings, 1st Workshop on Making Sense of Microposts (#MSM2011): Big things come in small packages, Heraklion, Crete, Greece, 30th May 2011*, May 2011.
- [16] J. Škilters, M. Kreile, U. Bojārs, I. Brikše, J. Pencis, and L. Uzule. The pragmatics of political messages in Twitter communication. In Rowe et al. [15], pages 69–80.
- [17] G. V. Steeg. Information theoretic tools for social media. In Rowe et al. [13], pages 1–1.
- [18] M. Strohmaier. Computational Social Science and microblogs – the good, the bad and the ugly. In M. Rowe, M. Stankovic, and A.-S. Dadzie, editors, *4th Workshop on Making Sense of Microposts (#Microposts2014)*, pages 1–1, April 2014.
- [19] M. Strohmaier and C. Wagner. Computational Social Science for the World Wide Web. *IEEE Intelligent Systems*, 29(5):84–88, Sept 2014.
- [20] K. Thorson, K. Driscoll, B. Ekdale, S. Edgerly, L. G. Thompson, A. Schrock, L. Swartz, E. K. Vraga, and C. Wells. Youtube, Twitter and the Occupy Movement. *Information, Communication & Society*, 16(3):421–451, 2013.
- [21] A. A. Vanin, L. A. Freitas, R. Vieira, and M. Bochernitsan. Some clues on irony detection in tweets. In *Proc., 22nd International Conference on World Wide Web (WWW ’13 Companion)*, pages 635–636, 2013.
- [22] K. Weller, E. Dröge, and C. Puschmann. Citation analysis in Twitter: Approaches for defining and measuring information flows within tweets during scientific conferences. In Rowe et al. [15], pages 1–12.
- [23] #Microposts2015 website. <http://www.scc.lancs.ac.uk/microposts2015>.
- [24] GESIS. <http://www.gesis.org>.