Social media is changing the way we access and consume media, stay in touch with family and friends, and also how we communicate within our online communities. These activities generate a tremendous volume of data that can be analyzed and mined for both research and commercial purposes. Taking the data deluge from social media, in its many forms, and transforming it into useful information, or knowledge, is the essence of this minitrack.

This minitrack begins with “Cues to deception in social media communications,” by Briscoe, Appling and Hayes. Briscoe and her colleagues extend previous work on linguistic cues to deception into communication over social network platforms by performing experiments using a social media style website that models real social media websites. The authors’ results confirm existing cues and also reveal interesting new cues. With sufficient training, machine learning classifiers reveal deception with 90% accuracy.

“Visual network analysis of twitter data for co-organizing conferences,” is by Jussila, Huhtamäki, Henttonen, Kärkkäinen and Still. Jussila and his colleagues present a case study based on the 2013 Community Manager Appreciation Day conference. Using Twitter data, the authors were able to identify influential participants, interesting presentations and discussions, and similarities between interests of the participants. Several insights into conference co-organization were derived from data visualizations, which have implications for improving the design, planning and organization of future conferences.

The third paper, “Using large scale aggregated knowledge for social media location discovery,” is by Thom, Bosch, Krüger and Ertl. This University of Stuttgart team introduces strategies that assign probable locations of origin to social media messages of unknown locations. They are based on aggregated knowledge about the author and/or the textual content of the message. Using their prototype implementation and a dataset of geo-located Twitter data, the authors evaluate the effectiveness of their strategies. The proposed strategies can locate up to 74% of messages that were written in specific cities and about 20% of messages written in specific districts.

The fourth paper, the “Effect of social networks on online reviews,” is by Samiei and Tripathi. Samiei and her colleague investigate how book reviewers interact on online review websites and learn from social networks. The authors find that reviewers having a large book collection begin with a larger range in their ratings, whereas reviewers connected to a larger social network begin with a smaller range in their ratings. This paper explores how reviewers learn and gain experience in different ways, which eventually affects how they rate books.

The fifth paper, “A bit of code’: How the Stack Overflow community creates quality postings,” is by Squire and Funkhouser. This Elon University team explores the role of source code and non-source code text on Stack Overflow. The main contribution of this paper is to provide a more detailed understanding of whether the presence of source code, and how much, actually will produce the “best” questions or answers. A second important contribution of this paper is to determine how the non-code portions of the text might also improve Stack Overflow postings.

“A framework for recommender systems in online social network recruiting: An interdisciplinary call to arms,” is by Buettner. Buettner presents a framework for recommender systems searching social networks for future employees. His framework focuses on person-organization environment fit, and includes crucial social components (e.g., workgroup fabric and organizational culture). His findings show how information extracted from online social networks has the potential to improve how companies recruit future employees.

Our final paper is “Mining frequent trajectory patterns and regions-of-interest from Flickr photos,” by Cai, Hio, Bermingham, Lee and Lee. This James Cook University team investigates using pattern mining algorithms on a large geo-tagged photo dataset hosted on Flickr. The authors show that interesting, previously unknown patterns can be discovered through trajectory pattern mining. These patterns reveal valuable tourist travel information about movement between hot-spot attractions in Queensland, Australia.