Preface

Social network analysis (SNA) is a multidisciplinary research area that has attracted many researchers from different disciplines such as Physics, Mathematics, Sociology, Biology and Computer Science, and has been studied according to different approaches and techniques. A social network is a dynamic structure (generally represented as a graph) of a set of entities/actors (nodes) together with links (edges) between them. The explosive growth of online social media has provided users with the opportunity to create and share digital content on a range hardly imaginable a few years ago. Indeed, massive participation has transformed online social networks into cores of social activity and a critical information vehicle. This is reflected by the number of news, opinions, and reviews that are constantly posted and discussed on these networks. The size and diversity of user-generated content create an opportunity for identifying central and influential players, behavioral trends and user communities. Formal concept analysis (FCA) is a branch of lattice theory motivated by the need for a clear formalization of the notions of concept and conceptual hierarchy. It has been successfully used for conceptual clustering and association rule mining. We believe that formal concept analysis and its extensions can contribute to the analysis and mining of social networks, e.g., affiliation and interaction networks, and possibly more complex structures. The first studies on using FCA for key player and community detection were conducted in the nineties. As the previous SNAFCA event (see http://snafca.free.fr), the second edition was co-located with the International Conference on Formal Concept Analysis (ICFCA 2015) and was held in Nerja (Spain) on June 25, 2015. The objective of the SNAFCA'2015 workshop was to bring together researchers and practitioners to discuss the ways the two research areas can benefit from each other's advances and study the potential of formal concept analysis in proposing new and efficient solutions to key topics in SNA such as central/influential actor identification, community detection and evolution, link prediction, and network reorganization. The workshop program included an introductory talk titled "Using FCA for Social Network Analysis" by Rokia Missaoui, regular talks, followed by a panel discussion "Why FCA for SNA?" moderated by Sergei Kuznetsov. The proceedings of SNA workshop include seven papers that were reviewed by at least two reviewers.

During the panel discussion the following issues were raised and discussed: Finding the meeting point of FCA, Descriptions logic and SNA Having clearer definitions of SNA goals in FCA terms Alignment of the notions of central/peripheral nodes by Freeman with SNA centrality User-controlled filters Privacy issues Representing the dynamicity in social networks by FCA means, including the key topic of community detection and evolution R package for FCA Proximity and similarity measures through FCA means.

To conclude this preface, we would like to thank all the authors for their contributions and the organizers of ICFCA'2015 for their kind support in hosting SNAFCA'2015. Our warm thanks go also to the reviewers for their careful review of the submissions and their useful comments and suggestions. Finally,

the success of this event was possible thanks to the active participation of thirty-five attendees and the dedication of Sid Ali Selmane, who acted as a webmaster of the workshop site.

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