

Preface

Special Issue on Web Intelligence and Personalization on Social Media

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Abstract. The explosive growth of resources available through the Internet, especially the emergence of social media, has created highly interactive platforms for users to create, share, exchange information and build social networks. This special issue includes several research outcomes which aim to develop technologies to help people exploit the information online in order to satisfy their information needs.

Keywords: Social media, personalization, information overload, social media usage

1. Introduction

The emergence of social media has substantially transformed the way organizations, communities, and individuals interact with information [1,2]. Social media facilitates new ways of information exchanging and sharing such as blogging, following, tagging, recommending, forwarding, commenting, etc. An enormous amount of information was generated on social media by all kinds of users all around the world. Social information sharing allows users collaborate implicitly, and discover new types of knowledge by leveraging and exploiting the ‘wisdom of crowds’. However, with this very large users’ base, the massive amount of information, and the wide range of services provided by social media sites, many issues arise associated with the change of users’ lifestyle and related to the communication among users and also between business and customers. On the other hand, users are concerned with issues such as privacy, identity theft, addiction, and social engineering attacks. Especially, with the extremely large amount of information on social media, users’ problems with information overload become more serious. Helping users to fruitfully exploit this huge amount of data to leverage their infor-

mation needs has become a very important problem. Personalization represents one of the key technologies that have been developed to overcome the problem.

Nowadays with the emerging technologies of Web 2.0, social interactions become essential and important for learners and educators. Web based learning environments are developed for enhancing both the learning process and the learning quality. In this special issue, Halimi and Seridi-Bouchelaghem propose an enhanced social personal learning environment which can provide students with personalized recommendations of learning collaborators and resources. The paper investigates the personalization of the learning process and proposes to apply Social semantic Web concepts to describe relations between various relevant entities, as well as to identify students’ learning types with Bayesian network models. Prasath, Kumar and Sarkar address another personalization application in the tourism domain. They present a domain specific information retrieval system that applies topic identification and tourism ontology to provide high quality and personalized tourism related documents to users.

With the explosion of Web 2.0 platforms, Web users are no longer just information consumers, but are also the “producers of information”. Instead of the Web be-

ing an enormous reading resource repository, the new generation of the Web becomes a platform for users to participate, collaborate and interact online. This is particularly true of social media sites. Huge amount of user generated content are up-loaded to the Web everyday by ordinary users [3,4] such as blogs, item ratings, and product reviews, etc. In this special issue, Abdel-Hafez, Xu, and Jøsang propose a novel reputation model which generates reputation scores for items by aggregating ratings given by users. An important contribution of this paper is the idea of automatically generating weightings for ratings based on the normal distribution of the ratings and also the frequency of ratings. In another paper, Bahrainian and Dengel propose several sentiment polarity detection methods which can be used for handle both informal texts such as tweets and formal texts such as Amazon reviews to analyse and detect users' opinion trends towards products or services which can benefit industry companies, product owners, government organizations and customers as well.

This special issue also includes a paper about social media usage study. Hutto, et al. investigate the use of social media by senior people aiming to understand social media usage by older adults, the impact such technology has on important elements of their lives, and how social media support their connectedness. They used questionnaire-based survey to explore the char-

acteristics distinguishing social media users from non-users among older adults, common activities of active social media users, and the relationships between older adults' communication habits and their outlooks regarding technology, perceived loneliness, and satisfaction with their own roles within their social networks. The paper covers a topic which is of interest in the presence of many social networking sites using a valid scientific methodology and procedures.

This special edition of WI focuses on the application, usage and user generated content analysis on social media. We believe that this special edition provides novel perspectives to the research area of Web intelligence and social media.

References

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