Interest in developing knowledge discovery and cloud computing technologies and applications has grown rapidly in recent years. The reason for this growth is the need to manage large amounts of data and the associated complexities associated with automatically processing it in order to extract relevant and useful information. Cloud computing technologies are key enablers for scalable processing, data storage, and Web services, which can be exploited to support the design and implementation of knowledge discovery systems and high-performance applications.

The 1st International Workshop on Knowledge Discovery and Cloud Computing Applications (KDCloudApps) takes place in Valencia, Spain, on September 3, 2015, in conjunction with the 26th DEXA conference and aims to encourage researchers from both academia and industry to discuss and exchange recent advances, results, experiences, and lessons learned from the development of applications that require technologies for large-scale data storage, processing, and integration such as cloud computing, semantic Web, information search, knowledge management, natural language processing, and Web services. All submissions were peer reviewed by three Program Committee members and only 11 papers were selected for inclusion in the proceedings. The accepted papers cover a wide range of research topics and novel applications on web services, natural language processing, knowledge management, semantic Web, and cloud computing.

Papers related to cloud computing deal with the problems of how to establish cloud service matchmaking approaches to find suitable services according to the service requester’s requirements and how to provide a scalable and efficient architecture for monitoring private clouds. In the semantic Web context, one paper provides a revision of the semantic Web challenges considering the three categories based on the general architecture proposed by Berners-Lee: representation, reasoning/querying, and quality.

Advances in information processing and the development of knowledge management systems are relevant topics in this workshop. Papers regarding these topics present different proposals that range from the creation of a meta-model for the design and implementation of data warehouses and a platform for knowledge management that integrates semantic Web technologies to knowledge management systems for geosciences.

Natural language processing is at the core of many applications related to information extraction and processing, in this workshop the discussions regarding this topic are about natural language processing approaches to support clinical decision systems and the extraction and classification of definitional contexts using machine learning techniques.

Finally, the papers regarding Web services are focused on the study of Web service matching approaches and their applicability for the cloud, Web services comparisons by their data type similarities, and Web services clustering using bio-inspired algorithms.

The workshops would not be successful without the help of many valuable people. First, we would like to thank the Program Committee members and external reviewers for evaluating the assigned papers in a timely and professional manner. Next, we are grateful for the support given by the DEXA Organizing Committee members and, of course, the authors, who provided their invaluable knowledge expressed in their papers.

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KDCloudApps 2015 Chairs