

## Preface

The first BIOASQ workshop on biomedical semantic indexing and question answering took place in Valencia, Spain on September 27th, 2013 and was hosted by the Universitat Politècnica de València. The workshop was supported by the BIOASQ project,<sup>1</sup> which organises the corresponding annual challenge. The goals of the workshop were to present the results of the first BIOASQ challenge and further the interaction with the wider community of biomedical semantic indexing and question answering.

The presenters represented research teams from different parts of the globe and with different viewpoints to the problem. This contributed to a very lively and interesting discussion among the participants of the workshop.

Seven papers were presented during the workshop. All were selected by peer-review for presentation (4 full papers and 3 short papers). This volume includes 8 papers: The first paper gives an overview of the challenge, including especially the datasets that were used throughout the challenges and the overall results achieved by the participants. The remaining seven papers are those presented at the workshop. The first of these papers presents and evaluates the approach used by the National Library of Medicine to identify publication types while the second gives an overview over MTI, the semantic indexing system used as baseline in the BIOASQ challenge. Two variations of HACE, a hierarchical semantic indexing framework, are the object of discourse of the third workshop paper. The fourth paper presents a scoring approach for answers to factoid questions based on a combination of prominence, specificity and type coercion. With the fifth paper, we go back to semantic indexing with an approach based on a combination of Support Vector Machines (SVMs) for mapping MESH terms to documents and regression for predicting the number of labels for each document. The last two papers also deal with semantic indexing. Especially, the sixth paper presents an incremental approach based on MetaMap and Labeled Latent Dirichlet Annotation while the seventh paper contrasts eight different feature selection approaches for multi-label text classification.

Further highlights of the workshop included two invited talks by Dr. Alan Roy Aronson of the National Library of Medicine (NLM) and Dr. Jennifer Chu-Carroll of IBM Watson Research, as well as a panel discussion, in which the two invited speakers were joined by Prof. Udo Hahn from the University of Jena and Dr. Rebholz-Schuhmann from the University of Zurich. The complete program of the workshop (including links to the papers) is available at the workshop page.<sup>2</sup>

We wish to thank all who participated to the success of this workshop, especially the authors, reviewers, speakers and participants.

Axel-Cyrille Ngonga Ngomo, Georgios Paliouras  
November 2013

---

<sup>1</sup> <http://bioasq.org>

<sup>2</sup> <http://bioasq.org/workshop>