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Journal Special Issue

Axel-Cyrille Ngonga Ngomo, Anastasia Krithara and
Aris Kosmopoulos

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Executive Summary

In this deliverable, we present the journal special issue in which the systems that participated to BioASQ are to be presented in more detail. The call for papers can be found in the appendix.

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Introduction

The goal of the second BioASQ workshop was to (1) further the interaction across the community all around the project and (2) measure the advancements over the first version of the workshop, which was carried out in 2013. As the workshop was part of CLEF, we had to carry out light reviews of the papers and accept simple system descriptions of varying quality. The primary aim of the special journal issue[1] is to compensate for this restriction and to present the core scientific improvements that led to the better results achieved by the participating systems this year. The call is yet designed in a more open manner and requests contributions from any group/individual that has pushed the state of the art in areas of research related to BioASQ.

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[1]The text of the call for papers can be found at http://bioasq.org/project/bioasq-special-issue

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Distribution of the call

We thus sent the open call for papers to the following mailing lists:

- eetn@iit.demokritos.gr

- list-mm@iti.gr

- list-multi-mine@iti.gr

- kdnet-members@iais.fraunhofer.de

- dbhellas@hdms.gr

- DDLBETA@googlegroups.com

- editor1@kdnuggets.com

- uai@ENGR.ORST.EDU

- ml@isle.org

- ML-news@googlegroups.com

- researchers@pascal-network.org

- IRList@lists.shef.ac.uk

- majordomo@cs.wisc.edu

- uai@engr.orst.edu

- kdubiq_members@iais.fraunhofer.de

- kdnet-members@iais.fraunhofer.de

- IRList@lists.shef.ac.uk

- researchers@pascal-network.org

- dbitaly@list.dia.uniroma3.it

- eetn@iit.demokritos.gr

- all@liaad.up.pt

- rede@appia.pt

- cladlead@fpce.ul.pt

- sbc-l@sbc.org.br

- event@in.tu-clausthal.de

- corpora@uib.no

- bionlp@lists.ccs.neu.edu

- connectionists@csd.cmh.edu

- ml@isle.org

Moreover, a link to the call for papers was sent to LinkedIn groups (DM, NLP People, NLP Forum, ML, SW Analytics, Text Analytics and SYNC3). In addition to the system presentations, the special issue will include a presentation of the BioASQ overall results as well as position statements towards the future of bio-medical question answering. Currently, 4 groups have already promised to send a more complete description of their papers. One group is currently contemplating a submission. As we are already working towards BioASQ 3, we are investigating the possibility of submitting an application for a further special issue in the ACM Transactions on Information Systems (TOIS) journal[1].

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[1] http://tois.acm.org/

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Call for Papers

Call for Papers
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Supplement on Semantics-Enabled Biomedical Information Retrieval
Journal of Bio-Medical Semantics

Important Data
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Submission Deadline: December 19th, 2014
Notification of acceptance/rejection: February 27th, 2015
Camera-Ready Paper Deadline: April 17th, 2015
Webpage: http://bioasq.org/project/bioasq-special-issue
Submission page: https://easychair.org/conferences/?conf=jbmsbioir2015

Call
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Every day, approximately 3000 new bio-medical articles are published on the Web. This averages to more than 2 articles every minute. In addition to the sheer amount of bio-medical information available on the Web, the variety of this information increases everyday and ranges from structured data in the form of ontologies to unstructured data in the form of documents. Staying on top of this huge amount of diverse data requires methods that allow detecting and integrating portions of datasets that satisfy the information need of given users from sources such as documents, ontologies, Linked Data sets, etc. Developing tools to achieve this bold goal requires combining techniques from several disciplines including Natural Language Processing (e.g., question answering, document summarization, ontology verbalization), Information Retrieval (e.g., document and passage retrieval), Machine Learning (e.g., large-scale hierarchical classification, clustering, etc.), Semantic Web/Linked Data (e.g., reasoning, link discovery) and Databases (e.g., storage and retrieval of triples, indexing, etc.).

The aim of this supplement is to collect and present the newest results from these domains in order to push the research frontier towards information systems that will be able to deal with the whole diversity of the Web in the bio-medical domain.

The topics of interest include (but are not restricted to):

- Large-scale hierarchical text classification

- Large-scale classification of documents onto ontology concepts (semantic indexing)

- Classification of questions onto ontological concepts

- Scalable approaches to document clustering

- Text summarization, especially multi-document and query-focused summarization

- Verbalization of structured information and related queries (RDF, OWL, SPARQL, etc.)

- Question Answering over structured, semi-structured and unstructured data

- Reasoning for information retrieval and question answering

- Information retrieval over fragmented sources of information

- Efficient indexing and storage structures for information retrieval

- Delivery of the retrieved information in a concise and user-understandable form

- Relation extraction

- Textual entailment

- Natural-language generation

- Named entity recognition/disambiguation

- Fact checking

- Exploitation of semantic resources (terminologies, ontologies) for information retrieval and question answering

- Normalisation of data resources with semantic resources, i.e., concept-driven data transformation

The BioASQ challenge and workshop are organised by the BioASQ project, supported by the European Commission within the 7th Framework Programme (Grant Agreement No. 318652).