

Report to SICSA on Semantic Web Applications and Tools for Life Sciences (SWAT4LS 2013)

On December 9-12, 2013, the 6th International Workshop on Semantic Web Applications and Tools for Life Sciences (SWAT4LS 2013) took place in Edinburgh at the Edinburgh University Informatics Forum (tutorial and hackathon) and the Royal Society of Edinburgh (workshop).

SWAT4LS is an international workshop series to meet and to present high-quality research results and relevant demos, applications and tutorials from all fields of Semantic Web technologies in Life Sciences.

The objective of the SWAT4LS workshop was to provide a forum dedicated to the dissemination of original research, the discussion of practical insights, and the reporting on relevant experience relating to the adoption of Web based information systems and Semantic technologies in biomedical informatics and computational biology. The workshop also aimed at providing a forum to exchange ideas, for example, through poster papers and demo papers.

The call for papers solicited research contributions in eHealth, biomedical and clinical informatics, systems biology, computational biology, drug discovery, bioinformatics and biocomputing. The call for contributions attracted 47 submissions from around the globe. The technical program shows a carefully selected presentation of research and development in 13 full papers, 1 short paper, 6 demos and 11 posters. These were complemented by 5 tutorials and 3 keynote talks provided by:

Keynotes

- David A. Kerr, Director, Watson for Healthcare, IBM Corporation
IBM Watson: Improving care for complex diseases
- Kerstin Forsberg, Astra Zeneca, Sweden
"Pushing back" — standards and standard organizations in a Semantic Web enabled world
- Frank Van Harmelen, VU University, Amsterdam
SWAT4CC: Semantic Web Applications and Tools for Clinical Care

Tutorials

- Alasdair J G Gray and Andrea Splendiani
The (Hitch-)hackers Guide to the Semantic Web
- James Malone, Simon Jupp, Marco Brandizi, Sarala Wimalaratne
RDF linked data and identifiers.org at the European Bioinformatics Institute
- Charlie Mead and Eric Prud'hommeaux
Applying Semantic Web Technologies in Clinical Care and Clinical Research: A SWOT (Strength, Weaknesses, Opportunities, and Threats) Perspective

- Pedro Lopes
The COEUS Platform
- Trish Whetzel
The Neuroscience Information Framework (NIF)

To place emphasis on the practical use of Semantic Web technologies in Life Sciences, SWAT4LS 2013 included a two day Hackathon. Data sets provided and experimented with during the hackathon include clinical trial data on breast cancer, adverse event data, pathways from wikipathways, linked data from Open PHACTS and RDF data available from the EBI.

The workshop was a great success with more than 30 people attending the tutorials and hackathon, and over 70 attendees at the workshop. Proceedings of the workshop have been made available on <http://ceur-ws.org/Vol-1114/>.

The SWAT4LS 2013 organizers wish to thank the excellent program committee for their hard work in reviewing the submitted papers. Their criticism and very useful comments and suggestions were instrumental to achieve a high quality of publication. We also thank the workshop authors for submitting good papers, responding to the reviewers' comments, and abiding by our proceedings production schedule. We further wish to thank the keynote speakers to contribute their interesting talks.

We gratefully acknowledge the support from SICSA, including the 10 studentships for SICSA students, all of which were allocated within a few days of announcing their availability.

Edinburgh UK, January 2014,

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