Guest Editorial

Data as "First-class Citizens"

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Data are an essential element of the research process. Therefore, for the sake of transparency, verifiability and reproducibility of research, data need to become “first-class citizens” in scholarly communication. Researchers have to be able to publish, share, index, find, cite, and reuse research data sets.

The 2nd International Workshop on Linking and Contextualizing Publications and Datasets (LCPD 2014), held in conjunction with the Digital Libraries 2014 conference (DL 2014), took place in London on September 12th, 2014 and gathered a group of stakeholders interested in growing a global data publishing culture. The workshop started with invited talks from Prof. Andreas Rauber (Linking to and Citing Data in Non-Trivial Settings), Stefan Kramer (Linking research data and publications: a survey of the landscape in the social sciences), and Dr. Iain Hrynaszkiewicz (Data papers and their applications: Data Descriptors in Scientific Data). The discussion was then organized into four full-paper sessions, exploring orthogonal but still interwoven facets of current and future challenges for data publishing: "contextualizing and linking" (Semantic Enrichment and Search: A Case Study on Environmental Science Literature and A-posteriori Provenance-enabled Linking of Publications and Datasets via Crowdsourcing), "new forms of publishing" (A Framework Supporting the Shift From Traditional Digital Publications to Enhanced Publications and Science 2.0 Repositories: Time for a Change in Scholarly Communication), "dataset citation" (Data Citation Practices in the CRAWDAD Wireless Network Data Archive, A Methodology for Citing Linked Open Data Subsets, and Challenges in Matching Dataset Citation Strings to Datasets in Social Science) and "dataset peer-review" (Enabling Living Systematic Reviews and Clinical Guidelines through Semantic Technologies and Data without Peer: Examples of Data Peer Review in the Earth Sciences).
We believe these investigations provide a rich overview of current issues in the field, by proposing open problems, solutions, and future challenges. In short they confirm the urgent and fascinating demands of research data publishing.

About the Guest Editors

Łukasz Bolikowski is an Assistant Professor at the Interdisciplinary Centre for Mathematical and Computational Modelling at University of Warsaw (ICM UW). He defended his PhD thesis on semantic network analysis at Systems Research Institute of Polish Academy of Sciences. He is a leader of a research group focusing on scalable knowledge discovery in scholarly publications. He has contributed to a number of European projects, including DRIVER II, EuDML, OpenAIREplus. Earlier at ICM UW he specialized in construction of mathematical models and their optimization on High Performance Computing architectures.

Paolo Manghi is a researcher at Istituto di Scienza e Tecnologie dell'Informazione (ISTI) of Consiglio Nazionale delle Ricerche (CNR), Pisa, Italy. He received his PhD in Computer Science at the University of Pisa (2001). Today he is a member of the InfraScience research group, part of the Multimedia Networked Information System Laboratory (NeMIS). His current research interests include data ICT infrastructures for science and technologies supporting modern scholarly communication. He is technical manager of the OpenAIRE infrastructure (www.openaire.eu).

Nikos Houssos works for EKT/NHRF since 2006 as Head of the Software Development Unit. He is the software architect of the Greek “National Information System on Research and Technology”, a national scale scholarly communications e-infrastructure. He has participated in various projects in the ICT (Mobile middleware and services) and the Research Infrastructures programmes (OpenAIRE/OpenAIREplus, ENGAGE,EuroRIs-Net+). He is an elected Board member of euroCRIS since 2009. He holds a Ph.D. in Computer Science (2004) from the University of Athens and has served (2004-2007) as an Adjunct Lecturer at the Technical University of Crete. His current research interests are in the areas of metadata and semantics, research data management and scholarly communication infrastructures and services.

Jochen Schirrwagen is a research fellow at Bielefeld University Library, Germany. He has a scientific background in Computer Engineering. He worked for the Digital Peer Publishing Initiative for Open Access eJournals at the academic library center “hbz” in Cologne (2004-2008). Since 2008 he is working for DFG and EU funded projects, like DRIVER-II, OpenAIRE and OpenAIREPlus. Jochen is interested in the application of metadata information using semantic technologies for the aggregation and contextualization of scientific content.