Preface of the

Joint Proceedings of the Poster & Demo track and Workshop on Ontology-Driven Conceptual Modelling of Digital Twins co-located with SEMANTiCS 2021,

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Preface

This volume contains the proceedings of the Poster and Demo Track of the 17th International Conference on Semantic Systems, SEMANTiCS 2021, and the Workshop on Digital Twins, which took place from September 6 - 9, 2021 in Amsterdam, The Netherlands. SEMANTiCS is the annual meeting place for professionals who make semantic computing work, who understand its benefits and encounter its limitations. Every year, SEMANTiCS attracts information managers, IT architects, software engineers and researchers from organisations ranging from research facilities, NPOs, through public administrations to the largest and/or most innovative companies in the world.

This year the SEMANTiCS conference's subtitle was **"Semantics in the Era of Knowledge Graphs"**, and especially welcomed submissions to the following "hot" topics:

- Web Semantics & Linked (Open) Data
- Enterprise Knowledge Graphs, Graph Data Management, and Deep Semantics
- Machine Learning & Deep Learning Techniques
- Semantic Information Management & Knowledge Integration
- Terminology, Thesaurus & Ontology Management
- Data Mining and Knowledge Discovery
- Reasoning, Rules, and Policies
- Natural Language Processing
- Data Quality Management and Assurance
- Explainable Artificial Intelligence
- Semantics in Data Science
- Semantics in Blockchain and Distributed Ledger Technologies
- Trust, Data Privacy, and Security with Semantic Technologies
- Economics of Data, Data Services, and Data Ecosystems

The Posters & Demos Track provided an opportunity to present innovative work in progress, late-breaking research and innovation results, and smaller contributions in all fields related to the broadly understood Semantic Web. These include submissions on innovative applications with impact on end-users such as demos of solutions that users may test or that are yet in the conceptual phase but are worth discussing, and also applications, use cases or pieces of code that may attract developers and potential research or business partners. This also concerns new data sets made publicly available.

16 out of 26 submissions were accepted to this track, selected with a peer-reviewing process. The reviewing committee included 47 members, who provided at least three reviews per submission. The accepted papers cover a wide range of topics among them are machine learning, legislation, regulatory compliance, ontologies and reasoning, open data, metadata catalogs, semantic search and querying, digital humanities, NLP and text mining. The accepted works have been published within CEUR Workshop Proceedings series. Each paper (except for the invited ones) was reviewed by at least three program committee members. Papers were selected based on the review scores, potential comments, and discussions among track chairs, as well as based on their topics to (try to) ensure a balanced and representative distribution of themes across the 2021 Poster/Demo Track. This volume includes these papers in traditional PDF format. We additionally included three papers from the Workshop on Ontology-Driven Conceptual Modelling of Digital Twins, which was co-located with the SEMANTiCS conference.

This volume also contains papers of the workshop on Ontology-Driven Conceptual Modelling of Digital Twins, which was organized by Marten van Sinderen and Luís Ferreira Pires from University of Twente (NL) and co-located with the SEMANTiCS 2021 conference. The workshop aimed at getting a better understanding of the concept of Digital Twin and its applications in different domains, by means of ontological analysis.

We hope that these proceedings will provide you with new inspirations for your research and with opportunities for partnerships with other research groups, academic and industrial participants.

Sincerely yours,

Maria Maleshkova, Ilaria Tiddi, Tassilo Pellegrini, Victor de Boer

The Editors   Amsterdam, September 2021