

Preface

During the last 15 years the Semantic Web evolved from being a pure vision to a set of novel technologies impacting the nature of the Web, which now includes huge amount of structured data represented with a homogeneous model (i.e., RDF) that fosters empirical research toward the development of intelligent applications and devices.

Although the Semantic Web scientific community successfully developed a significant amount of methods and techniques for dealing with Web content semantics, this research field still suffers from a general lack of common benchmarks, established evaluation procedures, tasks, and datasets, etc., making it sometimes hard to assess the current state of the art.

Being a relatively young field this is not surprising, and it is even a positive sign if we consider that innovation and creativity are the most important ingredients for pushing a field and identifying open and interesting problems. In other words, Semantic Web researchers often experience the identification of new tasks during their research work, which cannot be easily compared to existing related works for assessing a proper evaluation. In such cases, researchers are obliged to define new specific settings for empirically evaluating their results.

However, they are expected to provide the scientific community with proper settings and tools for assessing the state of the art on addressing the problem, by enabling replication of results and direct comparison to existing solutions. The Semantic Web community is therefore increasingly sharing raw evaluation data, algorithms, and results.

A solid way to support empirical research and to assess the state of the art with respect to a specific problem is to invite the related community to compete in a challenge in order to directly compare different methods and techniques, and to assess the best performing one at a certain point of time.

Based on this rationale, we have organized the first edition of the “Semantic Web Evaluation Challenge” (SemWebEval) as part of ESWC 2014 conference (held in Crete, Greece in May 2014), one of the most important international scientific events for the Semantic Web research community.

SemWebEval invited the state of the art and groundbreaking submissions on applications dealing with some of the most interesting challenges that the Semantic Web community is currently facing. In particular, the first edition focused on three areas: semantic publishing (sempub), concept-level sentiment analysis (ssa), and linked-data enabled recommender systems (recsys). A total of 23 teams were accepted to compete at different challenges (8 to sempub, 6 to ssa, and 9 to recsys). The event attracted 51 attendees, many of whom came to the conference specifically for attending the challenge, indicating that SemWebEval was much welcomed by the community and brought added value to the conference.

This book includes the descriptions of all methods and tools that competed at SemWebEval 2014, together with a detailed description of the tasks, and evaluation

procedures and datasets, offering to the community a snapshot of the advancement in those areas at that moment in time, and material for replications of results.

The editors have divided the book content into three chapters, each dedicated to one area (and challenge). The first chapter refers to “Concept Level Sentiment Analysis,” the second chapter to “Semantic Publishing,” and the third to “Linked Data-enabled Recommender Systems.” Each chapter includes an introductory section by the Challenge Chairs providing a detailed description of the challenge tasks, the evaluation procedure, and associated datasets.

I would like to thank my co-editors, who worked hard during the organization of ESWC and SemWebEval 2014. Thanks to their work, we experienced a successful and inspiring scientific event, and we are now able to deliver this book to the community.

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