

Proceedings
of
THE SECOND
INTERNATIONAL WORKSHOP
ON
DEFINITIONS IN ONTOLOGIES
(IWOOD 2014)

*Proceedings
edited by*

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Preface

The IWOOD 2014* workshop was the second workshop on definitions in ontologies in as many years. The first workshop (DO 2013) was held last year in Montreal in conjunction with ICBO 2013. The focus of this second workshop was on definition practices in either human or machine-assisted ontology development.

Explicit definitions of terms in ontologies serve a number of purposes. Logical definitions allow reasoners to create inferred hierarchies, lessening the burden of asserting and checking the validity of subsumptions. Natural language definitions help to ameliorate the pervasive problem of low inter-annotator agreement. In specialized domains, experts will know their own field well, but may only have limited knowledge of adjacent disciplines. Good definitions make it possible for non-experts to understand unfamiliar terms and thereby make it possible for more confident reuse of terms by external ontologies, which in turn facilitates data integration.

The goal of this workshop was to bring together researchers and developers in the biomedical domain to discuss difficulties that arise in definition construction with a view to sharing strategies. Even within the narrow domain of definition construction, cross-fertilization of ideas from related disciplines should yield benefits in quality and help reinforce common approaches and identify novel ones.

The communications published in these proceedings address the theoretical, methodological, and pragmatic criteria one should consider before engaging in the activity of defining terms in ontologies. The main goals of the first article are to shed light on the nature of logical and textual definitions, to explore the relationship that exists between them, and to make recommendations for an improvement between the two. The second paper addresses issues related to the general activity of defining terms as illustrated by the definition of 'sign' and 'symptom': asking preliminary questions; looking up and comparing existing definitions; considering one's ontological framework (BFO, other...); taking or not into account actual usages of the terms; discussing the relevance of alternative definitions; etc. The last communication describes how definitions can be used to assess the coherence and overall quality of an ontology according to some prerequisites, and proposes a systematic methodology for revising and updating existing definitions to conform to the set quality criteria.

Selja Seppälä, Yonatan Schreiber and Alan Ruttenberg
Textual and logical definitions in ontologies

Alexander P. Cox, Patrick Ray, Mark Jensen and Alexander D. Diehl
Defining 'sign' and 'symptom'

Werner Ceusters
An alternative terminology for pain assessment

1 We changed the acronym of the workshop from DO 2014 to IWOOD 2014 to avoid any confusion with the Disease Ontology acronym, also DO.

Acknowledgements

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IWOOD organizers

More information is available on the workshop's website:
<https://sites.google.com/site/definitionsinontologies/>.

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