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On the Boundary between Ontologies and Lexical Resources

Ontologies constitute an essential link between Knowledge Representation and Computational Lexical Semantics. The most relevant area of interest in this context are represented by Semantic Web and Human-Language Technologies (HLT): they converge in the task of providing the semantic description of content, although concerning two different dimensions, the conceptual and lexical one. Implemented ontologies and computational lexicons aim at digging out the basic elements of a given semantic space (domain-dependent or general), characterizing the different relations holding among them. Nevertheless, they differ with respect to some relevant aspects: i) the polymorphic nature of lexical knowledge can't be straight off related to ontological categories; ii) the widespread phenomenon of polysemy bears upon the lexicon but doesn't affect ontologies at all; iii) the architectural features of computational lexicons are far from being easily coded in a logic-based language; iv) considering foundational ontologies, a major distinction appears with respect to computational lexicons, the former focusing on high-level concepts (endurant, amount of matter, quality, perdurant) while the latter affect basic-level categories (dog, gold, red, walk).

Following a fashionable recent trend in the scientific community, computational lexicons are often said to incorporate or even correspond to linguistic ontologies, whose purpose is to describe semantic constructs of language (they are bound to grammatical units). Nevertheless there's a big debate on if the categorial structures of computational lexicons could be acknowledged as ontologies or not. We think that the most effective approach is to keep separated those layers, although interfacing implemented ontologies and computational lexicons remains the key-goal for next generation knowledge systems.

The talk deals with these topics, aiming at presenting a methodology for building hybrid semantic resources, where ontological and linguistic information meet.