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Aspects of ontology visualization and integration

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Stellingen

Stellingen behorende bij het proefschrift

"Aspects of Ontology Visualization and Integration"

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door

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1. Visualization of an ontology should be restricted to the hierarchy representation only. This thesis, Chapter 7.
2. It is not possible to comprehend a complete ontology in a single visualization window. This thesis, Chapter 3.
3. The modular approach through module extraction paves the way for integration of large ontologies from different domains around a concept of interest. This thesis, Chapter 6.
4. The perception of ontologies by a logician is completely different from that of a life scientist. This thesis, Chapter 3.
5. For Information Integration in general, and for the life sciences in particular, it will be a substantial achievement if the database integration as provided by methods described by Calvanese et al.¹ can be realized.
6. The difficulties with representation of statements like "all elephants are bigger than all mice" in OWL described by Rudolph et al.² show that this ontology language is not the best choice in the life sciences.
7. Doing discoveries from knowledge represented in RDF triples is not as promising as currently believed in the life sciences, e.g. Mons et al.³
8. Horrocks et al.⁴ state that the roles sister and mother should be declared as being disjoint. This can be easily refuted by the phrase from the movie Chinatown: "She's my sister, she's my daughter."
9. It is impossible to assess the reliability of some in silico prediction methods, e.g. predictions of protein protein interactions.
10. When only 100 meter separates you from the top, certainly, you will refuse to back off, with the consequence that you could die in the "death-zone" from the lack of oxygen, exhaustion and cold.

¹Diego Calvanese and Giuseppe De Giacomo. Data Integration: A Logic- Based Perspective. AI Magazine, 26(1):5970, 2005.

²Sebastian Rudolph, Markus Krötzsch, and Pascal Hitzler. All elephants are bigger than all mice. In: Proc. 21st Int. Workshop on Description Logics, 2008.

³Barend Mons and Jan Velterop. Nano-Publication in the e-science era. Technical report, 2009.

⁴Ian Horrocks, Oliver Kutz, and Ulrike Sattler. The Even More Irresistible SROIQ. In KR, pages 57-67. AAAI Press, 2006.