{tag}

{/tag}

IJCA Proceedings on International Conference on Advances in Computer Engineering and Applications

© 2014 by IJCA Journal

ICACEA - Number 6

Year of Publication: 2014

Authors:

Sarika Jain

Sanju Mishra

{bibtex}icacea1464.bib{/bibtex}

## Abstract

As a backbone of the Semantic Web, Ontologies provide a shared understanding of a domain of text. Ontologies, with their appearance, usage, and classification address for concrete ontology language which is important for the Semantic Web. They can be used to support a great variety of tasks in different domains such as knowledge representation, natural language processing, information retrieval, information exchange, collaborative systems, databases, knowledge management, database integration, digital libraries, information retrieval, or multi agent systems. Thus a fast and efficient ontology development is a requirement for the success of many knowledge based systems and for the Semantic Web itself. This paper provides

discussion on existing ontology tools and methodologies and the state of the art of the field.

## Refer

## ences

- Chung,L,Nixon, B. A. ,Yu,E & Mylopoulos,J. (1999), Non-Functional Requirements in software Engineering. http://www.cs.toronto.edu/km/nfr.

- Fonseca, F. (2007). The double role of ontologies in information science research. Journal of the American Society for Information Science and Technology, 58(6), 786–793.

- Wilson, T. D. (2002). The nonsense of 'knowledge management. ' Retrieved April 16, 2009, from http://informationr. net/ir/8-1/paper144.

- Frigg, R. (2006). Models in science. Retrieved April 16, 2009, from http://plato. stanford. edu/entries/models-science.

- Smith, B. (2003). Ontology and information systems. Retrieved April 16, 2009, from http://www.ontology.buffalo.edu/ontology(PIC).pdf.

- Guizzardi, G. (2005). Ontological foundations for structural conceptual models. PhD Thesis, University of Twente, Twente, NL, Centre for Telematics and Information Technology.

- Kaza, N., Hopkins, L. D. (2007). : Ontology for land development decisions and plans. In: Teller, J., Lee, J., Roussey, C. (eds.) Ontologies for Urban Development: Interfacing Urban Information Systems. Studies in Computational Intelligence, vol. 61, pp. 143–156. University of Geneva 6,. Springer Verlag ISBN 978-3-540-71975.

- Lee, J., McMeel, D. (2006-2007): "Pre-ontology" considerations for communication in construction. In: Teller, J., Lee, J., Roussey, C. (eds.) Ontologies for Urban Development: Interfacing Urban InformationSystems. Studies in Computational Intelligence vol. 61, pp. 143–156. University of Geneva 6. Springer Verlag. ISBN 978-3-540-71975.

- Buitelaar, P., Cimiano, P., Magnini, B., et al. (2005). : Ontology learning from text: an overview. In:Buitelaar, P., Cimiano, P., Magnini, B. (eds.) Ontology Learning from Text: Methods, Evaluation and Applications Frontiers in Artificial Intelligence and Applications Series, vol. 123. IOS Press, Amsterdam.

- Lenat, D. B., Guha, R. V., 1990. Building Large Knowledge-based Systems. Addison-Wesley, Reading, MA.

- 2013, N. K. Jain, Sarika Jain, "Live Multilingual Thinking Machine", Journal of Experimental and Theoretical Artificial Intelligence, Taylor and Francis, vol. 25:4, pp. 575-587.

- 2012, Sarika Jain, N. K. Jain, "Learning Techniques in Extended Hierarchical Censored Production Rules (EHCPRs) System", Artificial Intelligence Review, Springer Netherlands, vol. 38:2, pp 97-117.

- Sarika Jain, Sanju Mishra, "Knowledge Representation with Ontology", Proceedings of International Conference on Advances in Computer Engineering & Applications (ICACEA-2014), 15th February 2014.

- J. F. Sowa. 2000 Knowledge Representation. Brooks Cole Publishing, Paci?c Grove, CA, USA.

- J. W. Lloyd. 1988 Foundations of Logic Programming. Springer-Verlag.

- J. Minker 1997. Logic and Databases: Past, Present, and Future. Al Magazine, 18(3):21–47.

- A. Gangemi, N. Guarino, C. Masolo, A. Oltramari, and L. Schneider. 2002 Sweetening Ontologies with DOLCE. In EKAW-02: Proceedings of the 13th Int. Conference on Knowledge Engineering and Knowledge Management. Ontologies and the Semantic Web, pages 166–181. Springer.

- . I. Niles and A. Pease 2001. Towards a Standard Upper Ontology. In C. Welty and B. Smith, editors, Proceedings of the 2nd International Conference on Formal Ontology in Information Systems (FOIS-2001).

- P. F. Patel-Schneider, P. Hayes, and I. Horrocks . 2002. OWL Web Ontology Language; Semantics and Abstract Syntax. http://www.w3.org/TR/owl-semantics/,

- G. Klyne and J. Carroll 2004. RDF Concepts and Abstract Syntax. http://www.w3. org/TR/ rdf-primer/.

- Stephan Grimm1, Pascal Hitzler2, Andreas Abecker1 2007 Knowledge Representation and Ontologies Logic, Ontologies and Semantic Web Languages.

- Oscar Corcho 1, Mariano Fernandez-Lopez 2, Asuncion Gomez-Perez: 2002, Methodologies, tools and languages for building Ontologies. Where is their meeting point? Data & Knowledge Engineering 46 (2003) 41–64.

Computer Science

## Index Terms Data Mining

Keywords

Ontology Knowledge Knowledgebase Rules