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Ontology Driven environment for Semantic Learning

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Dissertation submitted to the Faculty of Information Technology, University of Moratuwa, Sri Lanka for the partial fulfillment of the requirements of the Degree of MSc in Artificial Intelligence

November 2014

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Declaration

I declare that this dissertation does not incorporate, without acknowledgment, any material previously submitted for a Degree or a Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organization.

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Acknowledgement

I would like to express my special gratitude and thanks to my supervisor Professor Asoka S. Karunananda, you have been a tremendous mentor for me. I would like to thank you for encouraging my research and for allowing me to grow as a research scientist. Your advice on both research as well as on my career have been priceless.

I would also like to thank University of Moratuwa for giving an opportunity to carry out this research project and its continuing support during the project.

Finally I would like to thank my parents, wife and friends for all of the sacrifices that you've made on behalf of me.

Abstract

Ontology Driven environment for Semantic Learning is semantic learning software which is capable of learning from a natural language source. It identifies language complexity, ambiguity and influence of diverse writing styles to extract and decipher. The specialty here in the system is usage of its acquired knowledge to perform teaching and explaining activities to its end users.Simply it learns somewhat like a human and teaches what it has learnt as a human does. Several efforts have been made over the last two decades to build computer software which is capable of learning from the natural language sources, understanding the learnt content, representing the knowledge and self-explaining.

The technology of natural language processing is still in controlled manner with inability of processing the complete natural language and ignoring the language complexity, ambiguity and different written patterns. Most of them have not focused on building a framework with learning, Knowledge representation and teaching capabilities and also they were not able to ignore the human enrolment of limitations when extracting the actual meaning of the learning process. That indicates, still the machine needs more human assistance in learning. This was one of the major hallucinations of the field of artificial intelligence which is still a miracle. This thesis is meant to delineate the background, research review, functions and features of Ontology Driven Semantic Self Learning and Teaching Framework. It further explained the purpose, literature, the interfaces, evaluation of the research, the constraints under which it must operate, conclusion and benefits of the research and how the system reacts to external stimuli. The software is endowed with inventions involving in Natural Language Processing, machine learning, explanation and knowledge representation and ontology, which are still under research.

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