

A Review on Ontology

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DOI: <https://doi.org/10.26438/ijcse/v7i6.156159> | Available online at: www.ijcseonline.org

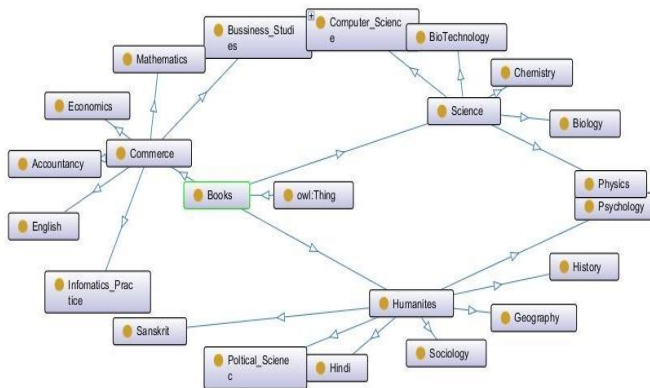
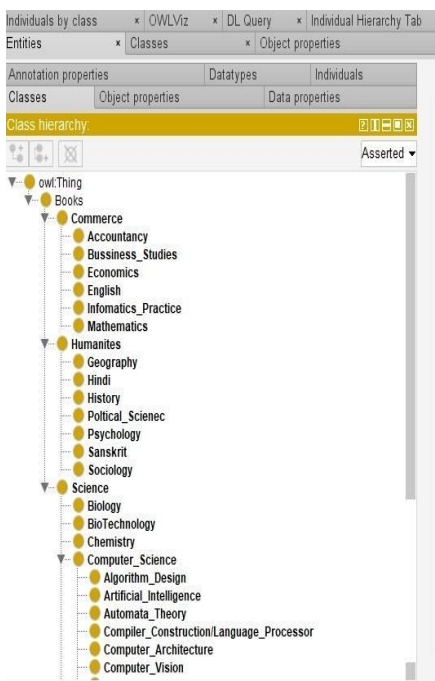
Accepted: 09/Jun/2019, Published: 30/Jun/2019

Abstract- Ontology and its role in different domain like Tourism, Agriculture, Music, Recommenders, industry 4.0, and big data is mostly used in literature. With the growing structure of W3 among artificial intelligence technique web 2.0 replaced with semantic web. SPARQL, DL-Query with their flavors are widely used in industry to retrieve information from the semantic web. Reasoning among the semantics are becoming popular in ontology. In this paper our main objective is to revision the various semantic web technology using ontology.

Keywords: Ontology, Web 2.0, Reasoning etc.

I. INTRODUCTION

One of the Semantic Web technologies is Ontology. The main advantage of ontology is easy to capture and symbolise the new information from a certain domain in a formal way, i.e., classes, axioms, and properties. Ontology provides a public dictionary set of a stated domain [2]. Protégé is a free, Open-Source Platform with a set of tools to construct Ontology. Ontology is proficient of acting some interpretations in syntactic as well as semantic facets [5]. Numerous topics of ontologies have been developed for several domains [8]. Ontology construction is very critical task in the field of building ontology. This course requires complete examination of ideas, terms and connections in various domain of interest. It strains minute transfer of information associated with ideas, since it is installed for clear understanding of the domain. Manual building of ontology from graze is very difficult and tedious job. Ontology education is initial to emerge as a sub-area of ontology manufacturing due to the rapid increase of web documents and the progressive methods shared by the facts retrieval, machine learning, natural language processing and artificial intelligence societies.



II. LITERATURE SURVEY

Author	Year	Proposed Work
Haya Majid Qureshi et. al.[1]	2018	Presented the symptom, cause, risk associated with syndrome using ontology. Also proposed the OBSDS frame work to querying with the ontology and performed the SPARQL query with evaluation metrics.
Yutika Amelia Effendi et.al.[2]	2018	In this paper the author given a formal approach to compare the semantic web technology with petri net. Also the relation among DL- ontologies and petri-net using a business process model.
Lina Nachabe et. al. [3]	2018	A smart diabetes monitoring model is proposed by the author. Already existing model for monitoring the symptom, treatment at home, causes and effect of diabetes is studied in this paper. Finally formalized a modular ontology model based on owl2 approach.
Susana A Arias T et. al.[4]	2018	Various surveillance task is executed via existing ontology like in security system, robotics, investigation etc. one of the popular CARETAKER ontology is tested in the study and a model is proposed for other surveillance tasks.
Swati Tanwar et. al. [5]	2018	In this the author present the ontology on education domain and studied the various parameters like how to construct the ontology in protégé, object and data property and relationship among them. Also discuss the DL-query in detail.
Lixiao Feng et. Al. [6]	2018	A structure to develop ontology based mechanism for fault diagnosing in mechanical industry and hazardous environment and monitoring the causes like leaking the chemical, corrosion effect, storage etc. which can be catastrophic for human being and for environment. Controlling and management of big data, reasoning on that via ontology based model is better as compare to the available mechanism.
Taras Lendyuk et. al.[7]	2018	Author proposed the e-learning management system using ontology. A new approach in ontology application to use fuzzy method like trapezoidal function to context linking, input variables, and some other functions in owl language. Protégé is used with Mat-Lab to implement this new approach.
G.Suganya et. al. [8]	2018	Information extraction is a tedious task. From, last 10 years the concept of ontology is becoming popular for information extraction. The author present various technique to extract information using ontology and associated tools form them. Author mainly focused on the three strategies of ontology construction named as manual, semiautomatic, automatic.
Benlaharhe Keltoum et. al. [9]	2018	Ontology on Islamic finance and banking is constructed using Protégé and neon methodology. Also expands the SPARQL query in owl language.
Apon Sahaet et. al. [10]	2018	Presented the mining of ontological data in semantic web using different methods and merging of sematic data available on different resources like DBpedia, ontobee.org, Also discussed the mining algorithm using pattern recognition, clustering using WEKA and various other available algorithm.
Abeer Abdulaziz Alsanad et. al.[11]	2019	Ontology plays the key role in semantic web. Software change management can be done by ontology in global development industry. It helps to reduce the efforts and cost for the project.
Chi-Han Du et. al.[12]	2019	Proposed easy yet effective algorithm to produce financial sentiment phrases (senti-phrases), and then with the achieved senti-phrases, we use numerous sentence embedding models for better Learning the demonstrations of financial risk sentences.
M. F. Mridha et. al.[13]	2019	Proposed a technique that can identify the missing word and offer a recommendation list correspond to missed word with 82.82% accuracy. It used n-gram model to find whether a word is missing between two words from a sentence or not.

Nusrath Tabassum et. al.[14]	2019	Sentiment analysis is an application of NLP which deals with data to examine the sentiment or opinion that can be either positive or negative. Presented the sentiment analysis for Bangla text using random forest classifiers and performed comparison with the existing system.
Monjoy Kumar Roy et. al.[15]	2019	Present the construction of a POS tagger primarily built on Bangla grammar specially suffixes. Because Bangla is an actual inflectional language, where a sole word has several alternatives built on their suffixes. In this POS tagger, 8 base POS tags, where certain rules, based on Bangla grammar and suffix, are applied to identify POS tags with the cooperation of verb root dataset.
Scott Denning et. al.[16]	2019	Proposed a coefficient of synonymy, which uses a novel technique centred on word distance and the density of words around those being compared for measuring synonymy. This technique provides reliable, equivalent values indicating the level of synonymy between words.
Yassine Benajiba et. al.[17]	2019	Presented the Siamese network for finding the pattern similarity. For a give instance on data the goal is to find a pool data with same similarity pattern using seamless LSTM regression model.
Enrique Noriega et. al.[18]	2019	Present a novel approach of open access biomedical texts that have been interpreted by biology subject matter experts to highlight context-event relations.
Huaze Xie, et. al.[19]	2019	Proposed a technique to examine dissimilar data base training result in order to demonstration that RNN with rough set training process can learn some relations between medical nouns.
Shuoming Li et. al.[20]	2019	Proposed a new approach based on the ontology cluster for the development reasoning of emergency scenarios and extends the sematic web rule language to understand the scenario deduction, which can apply the Bayesian network to perform the conditional probability reasoning. A counterpart modelling and modifying of the Bayesian network optimization process is introduced.

III. CONCLUSION

In conclusion systematic literature survey is performed on the ontology. With the growing demand of semantic web ontology's are becoming the popular from last ten years. There are various tools available to construct ontology's. Protégé is very famous one which is also used by the industry and biomedical field.

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