Ontology Learning and Knowledge Discovery Using the Web: Challenges and Recent Advances

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Ontologies form an indispensable part of the Semantic Web standard stack. While the Semantic Web is still our vision into the future, ontologies have already found a myriad of applications such as document retrieval, image retrieval, agent interoperability and document annotation.

Ontology Learning and Knowledge Discovery Using the Web: Challenges and Recent Advances provides relevant theoretical foundations, and disseminates new research findings and expert views on the remaining challenges in ontology learning. This book is an invaluable resource as a library or personal reference for graduate students, researchers, and industrial practitioners. Readers who are in the process of looking for future research directions, and carving out their own niche area will find this book particularly useful due to the detailed scope and wide coverage of the book, which informs any discussion of artificial intelligence, knowledge acquisition, knowledge representation and reasoning, text mining, information extraction, and ontology learning.

Topics Covered:

- Applications of Ontologies
- Artificial Intelligence
- Concept Formation
- Information Extraction
- Knowledge Acquisition
- Knowledge Representation and Reasoning
- Ontology Learning
- Taxonomy Construction
- Text Mining
- Text Processing

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Wilson Wong is a Postdoctoral Research Associate at the University of Western Australia (UWA) working on the application of text mining and natural language processing across different domains such as healthcare. Wilson was an Endeavour IPRS Scholar for his PhD study at UWA. His doctoral dissertation investigates the use of Web data for automatically acquiring knowledge from natural language texts across different domains. Wilson also has a BIT (First Class Honours) (Data Communications) degree, and an MSc (Information and Communication Technology) by research degree in the field of natural language processing from Malaysia. Wilson has close to 30 publications in book chapters, reputable conferences (e.g. IJCNLP, IJCAI, PACLING), and high-impact journals (e.g. DMKD, IDA). His areas of interest include text mining, natural language processing, Web technologies, and health informatics.

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