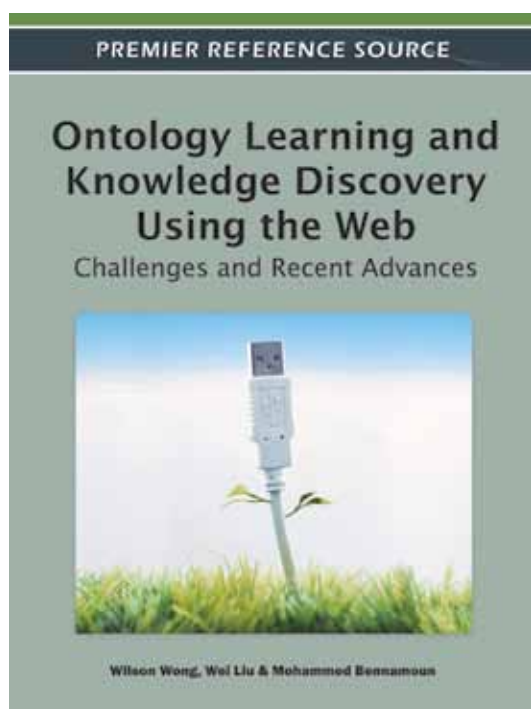


An Excellent Addition to Your Library!

Released: May 2011

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



Wilson Wong (University of Western Australia, Australia),
Wei Liu (University of Western Australia, Australia) and
Mohammed Bennamoun (The University of Western Australia, Australia)

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 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

ISBN: 9781609606251; © 2011; 358 pp.

Print: US \$180.00 | Perpetual: US \$255.00 | Print + Perpetual: US \$360.00

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

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.



www.igi-global.com

Publishing Academic Excellence
at the Pace of Technology Since 1988

Section 1: Techniques for Ontology Learning and Knowledge Discovery

Chapter 1

Evidence Sources, Methods and Use Cases for Learning Lightweight Domain Ontologies
Weichselbraun Albert (Vienna University of Economics and Business, Austria)
Wohlgenannt Gerhard (Vienna University of Economics and Business, Austria)
Scharl Arno (MODUL University Vienna, Austria)

Chapter 2

An Overview of Shallow and Deep Natural Language Processing for Ontology Learning
Zouaq Amal (Simon Fraser University - Athabasca University, Canada)

Chapter 3

Topic Extraction for Ontology Learning
Marian-Andrei RIZOIU (University Lumière Lyon 2, France)
Julien VELCIN (University Lumière Lyon 2, France)

Chapter 4

A Cognitive-Based Approach to Identify Topics in Text Using the Web as a Knowledge Source
Massey Louis (Royal Military College of Canada, Canada)
Wong Wilson (University of Western Australia, Australia)

Chapter 5

Named Entity Recognition for Ontology Population using Background Knowledge from Wikipedia
Zhang Ziqi (University of Sheffield, UK)
Ciravegna Fabio (University of Sheffield, UK)

Chapter 6

User-Centered Maintenance of Concept Hierarchies
Eckert Kai (University of Mannheim, Germany)
Meusel Robert (University of Mannheim, Germany)
Stuckenschmidt Heiner (University of Mannheim, Germany)

Chapter 7

Learning SKOS Relations for Terminological Ontologies from Text
Wang Wei (University of Nottingham Malaysia Campus, Malaysia)
Barnaghi Payam M. (University of Surrey, United Kingdom)
Bargiela Andrzej (University of Nottingham Jubilee Campus, United Kingdom)

Chapter 8

Incorporating Correlations among Gene Ontology Terms into Predicting Protein Functions
Hu Pingzhao (York University & University of Toronto, Canada)
Jiang Hui (York University, Canada)
Emili Andrew (University of Toronto, Canada)

Chapter 9

GO-Based Term Semantic Similarity
Alvarez Marco A. (Utah State University, United States)
Qi Xiaojun (Utah State University, United States)
Yan Changhui (North Dakota State University, United States)

Chapter 10

ONTOLOGY LEARNING and the HUMANITIES
Burrows Toby (University of Western Australia, Australia)

Section 2: Applications of Ontologies and Knowledge Bases

Chapter 11

Ontology-Based Knowledge Capture and Sharing in Enterprise Organisations
Dadzie Aba-Sah (University of Sheffield, UK)
Uren Victoria (University of Sheffield, UK)
Ciravegna Fabio (University of Sheffield, UK)

Section 3: Emerging Trends in Ontology Learning and Knowledge Discovery

Chapter 12

Automated Learning of Social Ontologies
Kotis Konstantinos (University of the Aegean, Greece)
Papasalouros Andreas (University of the Aegean, Greece)

Chapter 13

Mining Parallel Knowledge from Comparable Patents
Lu Bin (City University of Hong Kong, Hong Kong)
Tsou Benjamin K. (City University of Hong Kong, Hong Kong & Hong Kong Institute of Education, Hong Kong)
Jiang Tao (ChiLin Star Corporation, China)
Zhu Jingbo (Northeastern University, China)
Kwong Oi Yee (City University of Hong Kong, Hong Kong)

Chapter 14

Cross-language Ontology Learning
Hjelm Hans (alaTest.com, Sweden)
Volk Martin (University of Zurich, Switzerland)

Order Your Copy Today!

Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Country: _____

Tel: _____

Fax: _____

E-mail: _____

Enclosed is check payable to IGI Global in
US Dollars, drawn on a US-based bank

Credit Card Mastercard Visa Am. Express

3 or 4 Digit Security Code: _____

Name on Card: _____

Account #: _____

Expiration Date: _____