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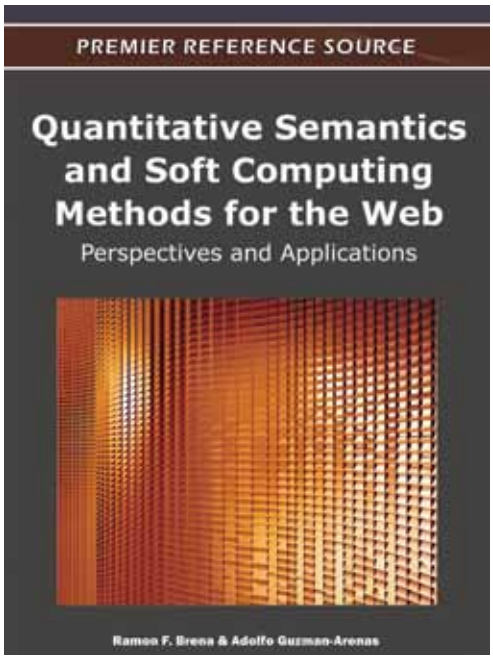
Quantitative Semantics and Soft Computing Methods for the Web: Perspectives and Applications



Edited By: Ramon F. Brena (Tecnológico de Monterrey, Mexico) and Adolfo Guzman-Arenas (Tecnologico de Monterrey and CIC-IPN, Mexico)

The Internet has been acknowledged as a recent technological revolution, due to its significant impact on society as a whole. Nevertheless, precisely due to its impact, limitations of the current Internet are becoming apparent; in particular, its inability to automatically take into account the meaning of online documents. Some proposals for taking meaning into account began to appear, mainly the so-called Semantic Web, which includes a set of technologies like RDF that are based on new markup languages. Though these technologies could be technically sound, practical limitations, such as the high training level required to construct Semantic Web pages, and the small proportion of current Semantic Web pages make the Sematic Web marginal today and also in the near foreseeable future.

Quantitative Semantics and Soft Computing Methods for the Web: Perspectives and Applications will provide relevant theoretical frameworks and the latest empirical research findings related to quantitative, soft-computing and approximate methods for dealing with Internet semantics. The target audience of this book is composed of professionals and researchers working in the fields of information and knowledge related technologies (e.g. information sciences and technology, computer science, Web science, and artificial intelligence).

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Topics Covered:

- Applications of Approximate Semantics
- Approximate Use of Hyperlinks
- Automatic Topic Discovery
- Semantic Algorithms Scalability
- Semantic Similarity Measures
- Semantic-Related Clustering
- Semantics-Leveraged Search Algorithms

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.

""It is our hope that in the next years the advancement in the semantic analysis would be reflected in the creeation of computer-based sophisticated systems for serving milions of users everyday goals, improving thus their lives in a meaningful way."

- Ramon F. Brena (Tecnológico de Monterrey, Mexico) and Adolfo Guzman-Arenas (Tecnologico de Monterrey and CIC-IPN, Mexico)

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Evaluating and Enhancing Contextual Search with Semantic Similarity Data
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Ramon F. Brena

Ramon F. Brena is a full professor at the Tecnologico de Monterrey, Mexico since 1990, where he is head of a research group in Distributed Knowledge and Multiagent Systems. Dr Brena is the head of the Master level graduate programs in Computer Science and Artificial Intelligence. Dr. Brena holds a PhD from the INPG, Grenoble, France, where he presented a doctoral Thesis related to Knowledge in Program Synthesis. His current research and publication areas include intelligent agents and multiagent systems, ubiquitous computing and ambient intelligence, formal methods in software engineering, knowledge representation and reasoning, Semantic Web and artificial intelligence in general. He has been a visiting professor at the University of Texas at Dallas and the Université de Montréal. Dr Brena is a member of the ACM and is recognized as an established researcher by the official Mexican research agency, CONACyT (SNI level I).

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