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Book Reviews

A Semantic Web Primer, Second Edition by Grigoris Antoniou and Frank van Harmelen, MIT Press, 288 pp., $42.00
doi:10.1017/S0269888909990117

The first edition of *A Semantic Web Primer* came out in 2004 and was reviewed in *Knowledge Engineering Review* volume 19, number 3. As one might expect from such a young technology, the semantic web has continued to develop over the intervening years, and this new edition has been revised and expanded to take account of those developments. Just as its predecessor, this edition of *A Semantic Web Primer* does a very competent job. The book provides a solid introduction to the use of XML for creating structured documents, the use of RDF and RDF Schema to describe Web resources, and the use of OWL for building ontologies, covering each of these three aspects in a separate chapter. Further chapters then cover mechanisms for reasoning with semantic web data, case studies of semantic web applications, and a discussion of the process of creating ontologies.

The bulk of this material is exactly that covered in the first edition, all of it material that has stood the test of time. In addition, there are several new topics, including the RDF query language SPARQL and the use of OWL DLP and SWRL for reasoning, which help to bring the new edition up to date. There is even a brand new final chapter which identifies a number of common objections to the semantic web (including those raised in my review of the first edition), along with reasons why the authors feel these objections are misguided, and a discussion of some of the ongoing issues and research challenges.

The fact that there is a second edition of *A Semantic Web Primer* suggests that the first edition was, as predicted in the review mentioned above, a very successful textbook. I see no reason why this edition should be any different. As I said of the first book, this would be my choice if I was to teach a course on the semantic web, and it would be the text that I would recommend to any graduate student who wanted to get to grips with semantic web technology.

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Essentials of Game Theory: A Concise, Multidisciplinary Introduction by Kevin Leyton-Brown and Yoav Shoham, Morgan & Claypool Publishers, 88 pp.
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In recent years, game theory has become a core topic in computer science, particularly in the area of artificial intelligence where ideas from game theory have been used to analyze problems in which interaction between autonomous entities plays an important role. The reason for the adoption of game theory in such situations is easy to understand. Game theory provides a rigorous mathematical way of describing such interactions, and allows for situations in which the entities can not only act independently, but also act in their own best interests (which closely fits many real-world situations). In addition, game theory provides a set of solution concepts, in essence different ways of describing possible outcomes of interactions, which can be used to reason about how those autonomous, self-interested entities will behave when they get to interact.

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