ARTICLES

The Semantic Web

24 Guest Editors' Introduction: The Semantic Web
   Dieter Fensel and Mark A. Musen

30 Agents and the Semantic Web
   James Hendler

38 OIL: An Ontology Infrastructure for the Semantic Web
   Dieter Fensel, Ian Horrocks, Frank van Harmelen, Deborah L. McGuinness, and Peter F. Patel-Schneider

46 Semantic Web Services
   Sheila A. McIlraith, Tran Cao Son, and Honglei Zeng

54 A Portrait of the Semantic Web in Action
   Jeff Heflin and James Hendler

60 Creating Semantic Web Contents with Protégé-2000
   Natalya F. Noy, Michael Sintek, Stefan Decker, Monica Crubézy, Ray W. Fergerson, and
   Mark A. Musen

72 Ontology Learning for the Semantic Web
   Alexander Maedche and Steffen Staab
**From the Editor in Chief**
Daniel E. O’Leary
Thanks for the Renaissance!

**Intelligencer**
Retail Robots on the Move
Parking on a Nickel
You Can’t Hide Your Lying Eyes
Lay It, SAM

**Expert Opinion**
Jim Waldo
Mobile Code, Distributed Computing, and Agents

**Applications: Computer Vision**
Rahul Sukthankar and Robert G. Stockton
Argus: The Digital Doorman

**AI in Space**
David P. Miller and Cathryne Stein
Creating Autonomous Roboticists

**Tutorial: The Semantic Web**
Michel Klein
XML, RDF, and Relatives

**Applications: Robotics**
Keri Schreiner
NASA’s JPL Nanorover Outposts Project
Develops Colony of Solar-Powered Nanorovers

**Al Briefs**
Kenneth I. Laws
Clips from the Computists’ Weekly

**Calendar/Call for Papers**

29 Computer Society Membership Info
82 Advertiser Index
88a/b Reader Service/Subscription Cards