

Usability, Databases and Ontologies

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Tim Berners-Lee's vision is that "If HTML and the Web made all the online documents look like one huge book, the Semantic Web will make all the data in the world look like one huge database".

On the other hand, another Tim —Tim O'Reilly — envisions a "Web 2.0" that harnesses users' collective intelligence via lightweight user interfaces, development models, and business models.

The Semantic Web is a long-term project to create an infrastructure for programmers to use. Web 2.0, on the other hand, is mainly about high-level user experience and immediate benefits.

This talk outlines some current work on semantics in RDF and OWL. Then, I'll argue that a wider technical view of ontological semantics will improve usability and speed up progress. The argument is illustrated with an online system called Internet Business Logic. The system combines three kinds of semantics with a lightweight author- and user-interface. It works as a kind of Wiki that people with spreadsheet-level skills can use to write and run knowledge as business rules in executable, open vocabulary, open syntax English. From the rules, the system can automatically generate and run SQL that would be too complicated to write reliably by hand. However, the system can also give explanations of the results, in English, at the business level. I'll show examples of how the system can be used for knowledge based data mining and supply chain planning. As befits a Wiki, shared use of the system is free.

About the Speaker:

Dr. Adrian Walker is the author of over 20 papers, and co-author of an Addison-Wesley book, on logic-based systems and databases. His experience includes: Assistant Professor at Rutgers University; Manager of Principles and Applications of Logic Programming, IBM Yorktown Research Laboratory; Manager, Internet Development at Eventra (a manufacturing supply chain company). He is currently the Chief Technology Officer of Reengineering – www.reengineeringllc.com.