

Deploying Semantic Technologies for Digital Publishing: A Case Study from Logos Bible Software

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This talk describes an effort at Logos Research Systems to build a semantic knowledgebase encompassing general background information about entities and relationships from the Bible (one of the world's most popular collections of information). The scope includes people, places, belief systems, ethnic attributes, social roles, as well as family and other inter-personal relationships, places visited, etc. This Bible Knowledgebase (BK) will be used to support knowledge discovery and visualization in both desktop and web-server configurations for Logos' products. It will also provide an integration framework for Logos' substantial digital library (more than 7000 titles from over 100 different publishers). The project is a good example of what it takes to move a real-world, knowledge-intensive application into a Semantic Web framework.

Some interesting technical aspects of the work:

- Building BK involved combining a substantial collection of legacy data (several thousand entities representing all the named people from the Bible, their family relationships, and references to their occurrence in the Bible), converted to RDF using XSLT, with a separately-developed OWL ontology (New Testament Names, <http://semanticbible.org/ntn/ntn-overview.html>) . Successfully merging these two data sets involved several technical issues related to ontology modeling and URI construction.
- Incorporating provenance data to indicate the source of information has been a key design goal. Consequently, the BK ontology includes a substantial hierarchy of reified relationships, which has some interesting consequences for development.
- BK will provide an indexing and integration framework for our large collection of digital texts (which are currently indexed by a simple natural language terms). This is a key problem for semantically-oriented digital publishing.

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