Financial Services, Health Care / Life Sciences, Ontology/Ontologies

Interest Grows In Riding The Semantic Wave

By Jennifer Zaino on January 9, 2014 9:15 AM

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Industry leaders in sectors including banking and financial services look to have high hopes for semantic technology. They're thinking about FIBO (Financial Industry Business Ontology) and leveraging semantic technology for more traditional types of data integration and analytics projects. At Cognizant, Thomas Kelly, a director in its Enterprise Information Management practice – and the author of this white paper on How Semantic Technology Drives Agile Business – sees the positive development that clients in the Fortune 500 space like these "are maturing in their use of semantic technology, from a project focus to more enterprise initiatives."

The interest in FIBO, he says, is representative of an overall interest across in industries in leveraging industry ontologies as mechanisms to help companies better standardize, align and learn from the output of industry-wide efforts. The attention that industry analysts, including Gartner, have put on the semantic web in the last year – not to mention regulators beginning to consider its use in sharing information on a regulatory basis – have helped increase interest by commercial organizations, Kelly notes. That's also evident in the life sciences sector, as another example, with the efforts of the FDA/ PhUSE Semantic Technology Working Group Project to include a draft set of existing CDISC standards in RDF.

The pickup in attention to many things semantic ties to the different perspectives that organizations need to manage about their data, which include "how they currently think of their data, how it is currently perceived in managing business operations; and where they are looking to go in the future that makes it more inclusive of what's going on in the world outside their walls – that is, how the rest of the industry looks at this data and uses it to support their business processes," he says.

"So from a practicality standpoint they will leverage their internal view for some time but they are looking to integrate more with where they think the industry is going and where the standards are coming from."

The appeal of the semantic approach is that – unlike the way that industry data models have worked in the past – they don't have to drop everything they've done in favor of a wholesale shift. Rather, they can be more evolutionary in adopting ontology mechanisms and ideas: "That model lets them start incorporating that," he says. "In fact, they can take that definition as they describe it or take the idea and extend it a bit to be more specific to how they do things, and over time, incrementally, take pieces of that standard and weave it in to their data culture, if you will. They can try and fine-tune things without the risk of completely changing out their data models." They can start leveraging the new concepts quickly but incrementally so that they don't have to worry about reengineering all their systems before they get the first dollar of value out of the new data model, he notes.

At the same time, Kelly is watching with interest startups – including internal enterprise startups – that see how starting completely fresh with semantic models can give them a real leap forward from a data management standpoint. "There's a new financial services organization starting up every day, and many are looking at getting a competitive advantage with bigger, established organizations," he says, and considering that an "ontology edge" could be helpful here. "They see that it will take more traditional organizations awhile to fully come up to speed with this new technology and way of managing their data that they could adopt from the very beginning, and that could put them a year or two ahead of the competition."

There's also, he believes, a shift by big companies in sectors like financial services to opt to use systems-integrators rather than boutique services firms for their semantic projects, as those projects shift from niche to more mainstream and enterprise-wide data integration and analytics efforts. From service providers, "they are looking for economies of scale and the ability to handle large projects," Kelly says. From semantics, they are looking for a more agile set of technologies, capable of bringing down costs because of a lack of barriers to project speed, and capable of beginning to realize a project literally within days of its start.

This year, expect to see leveraging semantic technology in enterprise services as a main focus. such as web services for application integration. "Instead of actually building web services they may make data more available in a technology-agnostic, abstracted perspective, which is a key reason behind web services – to insulate applications from how data is structured behind the scenes," he says. Or they may move a bit more slowly, still building web services but using semantic tech in the background "to query data so the web services don't have to worry if the data is in a relational database or in Big Data and other environments and maybe even some of it is out on the web in the Linked Data cloud," he says.

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