



SWSPC 2004 Panel

DO ACADEMICS AND INDUSTRY DIFFER
IN THEIR APPROACH TO SEMANTICS
FOR WEB PROCESSES?

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DO THEY DIFFER?

Without a doubt!

- Timelines are different
 - Industry solutions working with 6-18 month delivery windows – always an ROI decision
 - Academic world working with 12-36 month vision
- Intent is different
 - Proof of concept vs. repeatable solutions
 - Impact witnessed in technology architectures
- Use cases are (typically) different
 - Academia still not very good at tying back a vision to specific corporate “pain-points”
 - Semantic Web as an example
- Scope of innovation is different
 - Industry is forever constrained by the pragmatic need to support legacy systems and minimize rip-and-replace



CRITICAL BARRIER TO INDUSTRY ADOPTION!

Eliminate the Confusion!

What are "Semantic Web Services?"

- OWL-S???
- WSMO???
- BPEL???
- More???

Who keeps the "standard?"

- W3C???
- OASIS???
- ISO???
- DERI???
- myGRID???

Only once the turf-battles indicate a clear winner will ISVs fall-in to help move the specification's forward.



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- ✓ Use the power of inference for service discovery and composition.
 - ✓ During queries to find services
 - W3C DAWG Specifications – in process
 - NI XQuery based inference – available today
 - ✓ To enable predictable and reliable reasoning
 - OWL-DL based schema always get “treated” the same way by different vendor implementations
 - ✓ To better reflect the real-world in Web Service “yellow, green, blue, ... pages”
 - True ontology, not a simple taxonomy
 - Use of “t-models” in UDDI, for example
 - ✓ DNS Registry/Repository of service semantics
 - OASIS ebXML reg/rep OWL access layer
 - Machine-to-machine vocabulary management



CORE PRINCIPLES & CALL TO ACTION

SEMANTICS SHOULD BE MODEL-DRIVEN, NOT CODED

Custom written software programs capture semantics in a tightly-coupled way, software models are a loosely-coupled alternative.

SEMANTICS ARE LOCAL, NOT GLOBAL

The meaning of anything, especially data, must be taken in context – and context is always local to a specific user or community.

SEMANTICS SCALE BEST WHEN FEDERATED

Centralized meanings limit adaptability and stifle adoption of new innovations, a flexible framework of meanings with multiple small centers is better.

SEMANTICS EVOLVE IN REALTIME

Static data models can't keep pace with business change; a software infrastructure that leverages dynamic and evolutionary data models is superior.

SEMANTICS ALWAYS OCCUR AT THE EDGES

Data meanings are most important when the edges of two “things” (human eyeballs to a monitor or one software layer to another) meet and exchange information.

SEMANTICS NEED NOT BE “STANDARDIZED”

Standard, shared vocabularies can artificially constrain the evolution of data communications because meaning will change over time and in new contexts.



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QUESTIONS?

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