Global Harmonization Through Collaboration

Keynote: The Semantic World

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Date: August 29, 2012
Your current systems suck.
How did they get that way?
Application Portfolio Process
Unmanaged Schema Explosion
Application Portfolio Process
Application Portfolio Process

App proposal

ROI?

Yes

Impl

No
Unmanaged Schema Explosion
Schema Explosion
Increase in Schema Complexity Drives Most of Your IT Costs
Three companies that have escaped this fate...
Stay safe from online crime

Find out how DataPatrol can help protect you from identity theft and financial fraud.

READ MORE
London 2012

Global winners and losers at London 2012

Which nations got the most out of London 2012 and which took a battering? BBC Sport examines the medals table

Headlines

Cuts expected to some GB sports

FOOTBALL
Coleman welcomes end to Team GB

VOLLEYBALL
Brokking leaves due to funding

WORLD
In pictures: Olympic homecomings

Lighthouse named after Walcott

Spectacular end to
Amdocs
What is different about Semantic Technology?
Relational v. Pre-relational

- Open standards
- More flexible
Semantic v. Relational

- Open standards
- More flexible
- Designed to scale
- Can do things either impossible or very difficult with traditional technology
How does it work?
Local IDs

- Really hyperlocal

<table>
<thead>
<tr>
<th>EmpId</th>
<th>FirstName</th>
<th>LastName</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Joe</td>
<td>Jones</td>
<td>$80,000</td>
</tr>
<tr>
<td>002</td>
<td>Susan</td>
<td>Smith</td>
<td>$90,000</td>
</tr>
</tbody>
</table>
GUIDS

• May be globally unique, but not globally resolvable

• What will you do when someone sends you a message with this in it?

• \{21EC2020-3AEA-1069-A2DD-08002B30309D\}
A global id, that really is global

• URI/URL
  – http://semanticarts.com#emp001
Adapted from: www.sbolstandard.org/initiatives/best-practices
One way to express information
Anatomy of a triple

Of a “property”

McComb:John \(\text{br:parentOf}\) McComb:Dave

Subject \hspace{1cm} Predicate \hspace{1cm} Object
This simple representation is a building block for complex structures.
Inference
Deriving New Information

• The key distinction of Semantic Technology is the ability for a machine to derive new information from existing information based on formal classification rules.
Hyper Modular
Ontologies are evolvable and can be extended while deployed.
What can you do with Semantic Technology?
Semantics is transforming information systems in three main areas
Ontology

Harvest

Organize

Consume
Getting Started
Tactical or Strategic
Tactical:
Pick a sandbox and experiment

Harvest
Unstructured Integration
Legacy Extraction
External (LOD)
Dynamic Apps

Organize
Flexibly Linked Data
Automatic Classification
Federated Query
RESTful APIs

Consume
Semantically-Driven Work Flow
Next Gen Analytics
Mash-ups
SEO

Tactical: Pick a sandbox and experiment
Strategic:
Commit, drive the future top-down

Ontology
Want more?
White papers, blogs, this presentation...

www.semanticarts.com
www.semanticarts.com/AirTran

Thank you!
Questions
Contact Information