

RACSA

XQuery

XPath

Wrap-up

XQL

**X
M
L**

HornML

TRIPLE

Protégé

RFML

OWL

j-DREW

DAML

XSL

OIL

CSS

**R
D
F**

SHOE

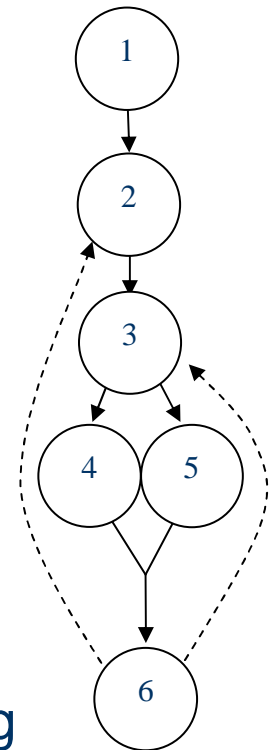
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IIT Internet Logic Semantic Service Computing

- IIT has strategically chosen to pursue a series of projects centering on Semantic Web Services
 - Builds upon the strengths of the researchers in the group
 - Adds to existing projects, will enhance future projects
 - Built around a six-step framework
- Idea
 - Each of our projects is oriented toward providing services to user
 - choose services according a model of the user's needs
 - Semantically match services
 - Monitor them as they run, detect faults and provide feedback

NRC's Semantic Service Oriented Framework

1. Given the user's specification, find services according to descriptions of their purpose, their *semantics*.
2. Rank candidate services based on earlier ratings and on predictions about their effectiveness for current needs.
3. Select the best suite of services, and bundle as needed noting the data dependencies that define some ordering information between services.
4. Within each bundle, bind data models, ensuring that data coming from one service can be understood by the next.
5. Configure the workflow that invokes the services.
6. Run the services and monitor their activities by comparing to what is expected by the user. Log the usage data to provide feedback for later recommendations.



Specific projects

- A completely general solution is AI-complete
 - Framework is more of a guideline, allowing us to relate projects to each other
 - Alignment between projects allows us to use the best results from existing projects
 - Specific cases are assisted by knowing what the user's needs will be, some of the services, some of the compositions
- Four clusters of projects
 - UCLP-enabled Participatory Design Studio (Canarie)
 - Notify Me – emergency alerting (UNB)
 - Business Domain Ontology Repository (Exigen)
 - inDiscover (Bell Sympatico / MSN)