Semantic Web Services Panel

Two observations and attractions

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Observations / Obstacles

History – Learn it or repeat it

- This about action!
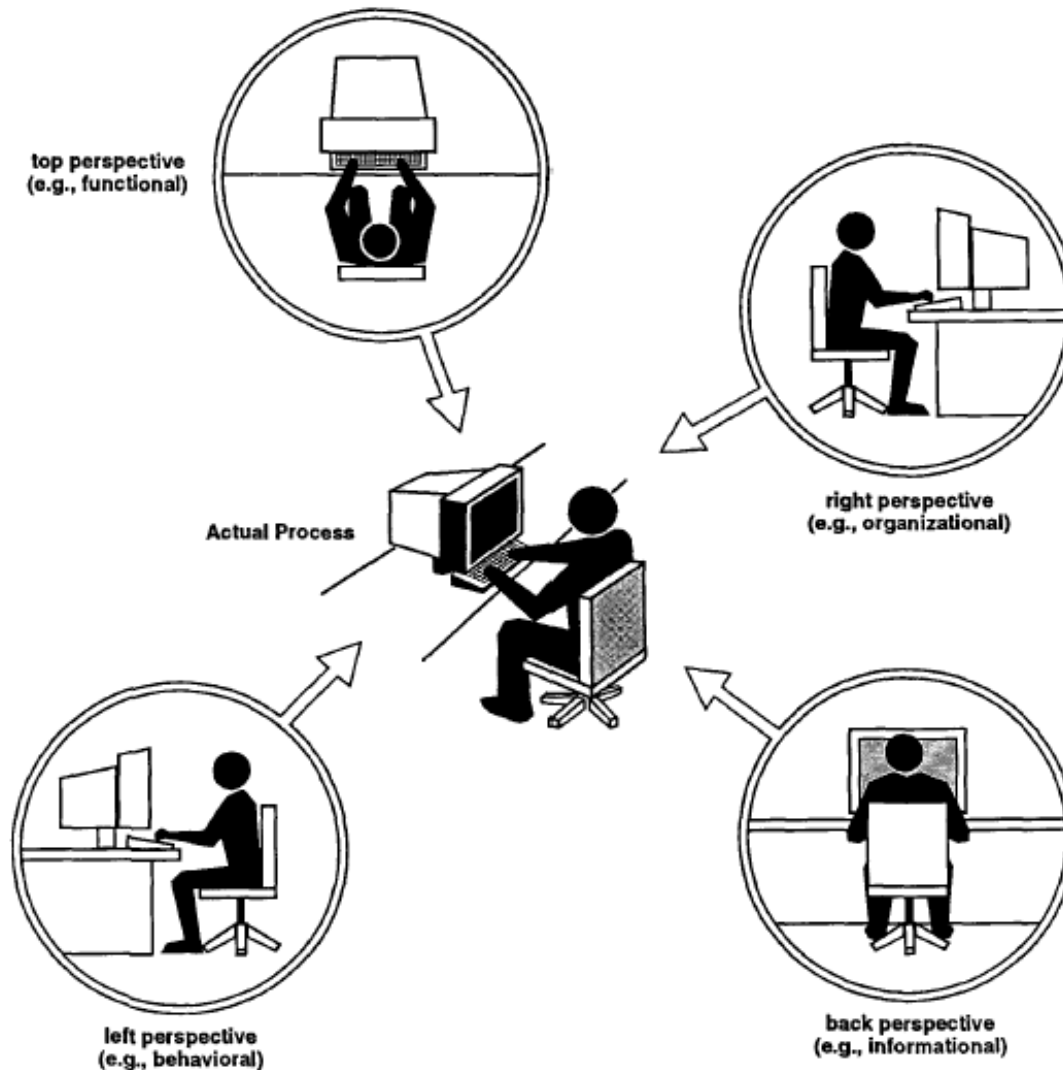 - Why are we ignoring all the work done on processes enactment (execution)?

Simplicity – KISS

- Why are we ignoring major results of usability?

Services have multiple aspects!
Curtis et al (1992) CACM 35(2)

top perspective
(e.g., functional)

right perspective
(e.g., organizational)

Actual Process

left perspective
(e.g., behavioral)

back perspective
(e.g., informational)

Using process-specifications to chain programs/procedures accross computers

A Very High Level Programming Language for Data Processing Applications

Michael Hammer, W. Gerry Howe,
Vincent J. Kruskal, and Irving Wladawsky
IBM Thomas J. Watson Research Center

Application development today is too labor-intensive. In recent years, very high-level languages have been increasingly explored as a solution to this problem. The Business Definition Language (BDL) is such a language, one aimed at business data processing problems. The concepts in BDL mimic those which have evolved through the years in businesses using

Introduction

- 1977: CACM 20(11)

➔ **Don´t ignore and/or reinvent work on processes**

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translation process involves a re-algorithmization of the user's solution requiring the specification of numerous details unnecessary to the solution description, using primitives at a level far removed from the original algorithm. Furthermore the incipient programmer, when presented with a language in which to encode his process, really has only an inventory of linguistic features and constructs, but no plan of how to use them. He has a wide latitude in constructing from the available primitives a structure to accomplish his desired goals. This situation places a great burden on such a programmer. He must fashion for himself with
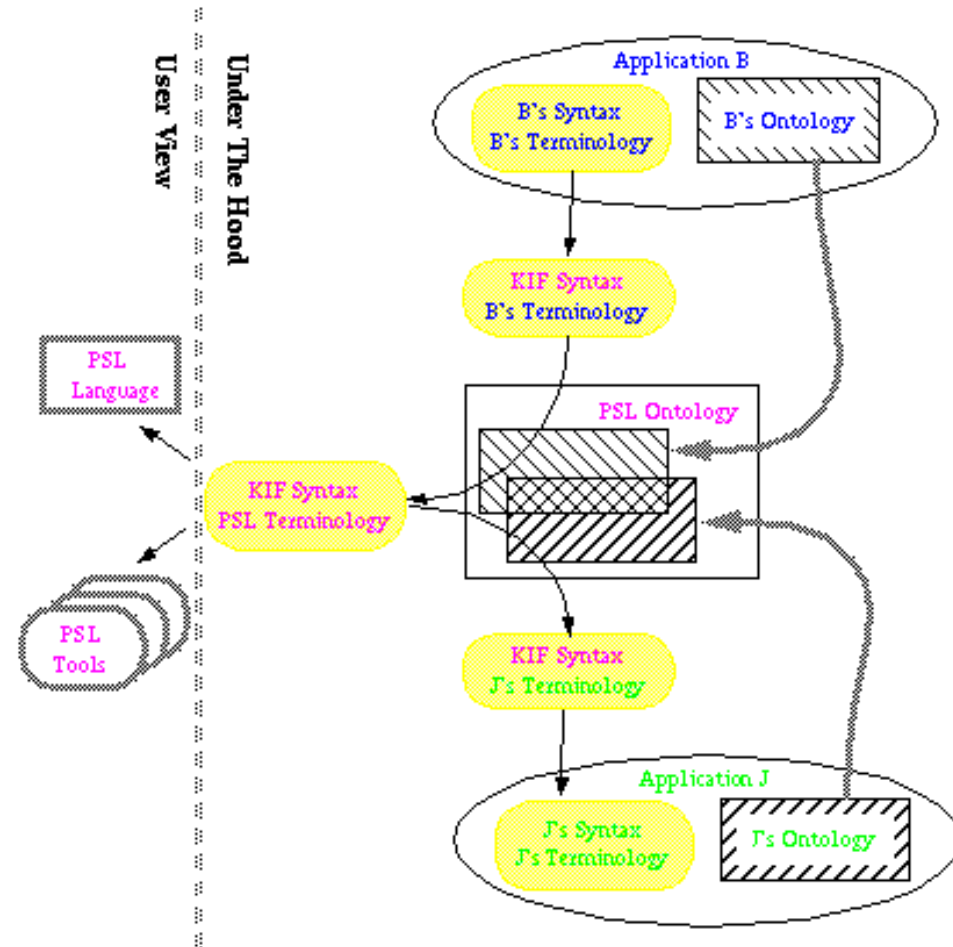
Process Interchange Formats PIF, PSL, …

- Process interchange formats
  - Typically based on KIF
  - Translate between ontologies using partially shared views

➔ **Don´t ignore and/or reinvent work on processes**

MIT Process Handbook

- Process repository and editing tool
  - Contents
    - Over 5000 processes and activities,
    - Generic business models
    - Taxonomy of generic **activity** types
    - Case examples, on-line discussion forums
  - Represents processes using
    - decompositions (part of)
    - inheritance (type of) hierarchy
    - dependencies

Simplicity – Main Obstacle
Let us look at service retrieval…

- Professor of Speech Pathology
- In her late 50´s
- wants to find a data analysis service
- Will she learn RDF, UDDI++, OWL, etc.?

➔ **NO**

- Student of Computer Science
- Will he learn RDF? UDDI++, OWL?

➔ Yes

- But will he use it on a regular basis?

➔ **NO**

Social Problem!!!!!

- Remember LClint…

Attractions

- Makes the semantic web active
  - ➔ Lot´s of applications and needs
- Gracefully integrate human and machine activity