



“Do academic research and industry  
differ in the role and approach to use  
semantics for Web Processes?”  
[SWSWPC 2004 Panel]

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# Issues: Academic Research vs. Industrial Development

- Do they differ?
- Should they differ?
  - Yes. If they are not, no reason for two kinds of institutions
- What are the main differences?
  - Academic: Theoretical aspects, basic technologies and tools
  - Industry: How to deliver the values to the customers with less resources
- If they do not differ enough, will intellectual pursuit and innovation be stifled?
- If they differ too much, will academic research become abstruse and possibly irrelevant.
- Pitfalls to be avoided?
- Facilitators of long-term cooperative R&D.



# Task Computing

- Enabling users to dynamically compose and execute tasks from available service functionality using semantic descriptions
  - <http://tc.flacp.fujitsulabs.com>
- Came out of collaboration between Fujitsu Labs of America, College Park and MINDSwp Group
  - MINDSwp, University of Maryland (Headed by Prof. Hendler)
    - <http://owl.mindswap.org>
  - *OWL-S API*, resulted
    - <http://www.mindswap.org/2004/owl-s/api/>
  - *OntoLink*, designed jointly, developed by FLA, College Park, later made open source
    - <http://www.mindswap.org/2004/OntoLink/>





# For Industry

- Share the Vision
  - Visualize, give examples, mockups, etc.
- Define the Interface
  - Do not step into other's area
  - Clearly communicate what you want through the interface and then believe them in delivering it.
- Clarify IPRs and Deliverables
  - Universities are getting tougher on those issues
  - They need to be separate on the surface. But they are “really” separate, the collaboration is meaningless.
  - Still be flexible
- Mutual trust and respect
  - Give, give, give, and then take



# Timeline/Deliverables

Jun/02

Jul/02

Aug/02

Mar/03

Survey of UPnP

Implementation of SSDC Layer

Implementation of Service Editor/Tools

Implementation of UPnP Services

Scenario

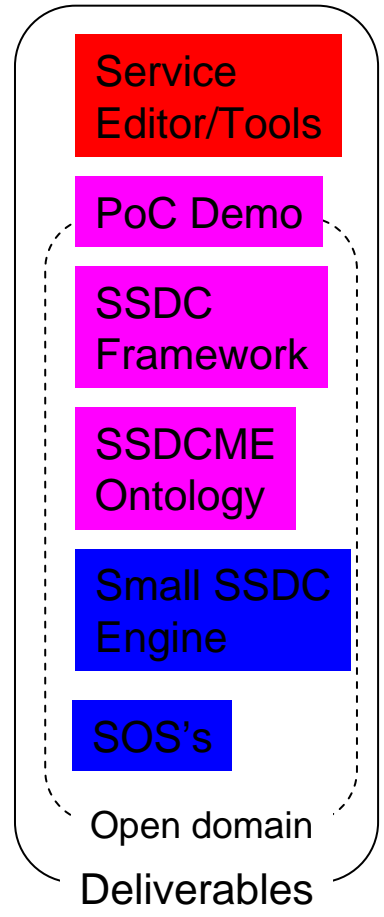
Integration of 1st Demo

Integration of 2nd Demo

Ontology Development

Implementation of Small SSDC Engine

Implementation of SOS's (Semantic Object Scrapers)



FLA, CP	Joint	MIND Lab
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PoC: Proof of Concept  
 SSDC: Semantic Service Discovery and Composition  
 SOS: Semantic Object Scraper

1st Demo

2nd Demo



# TC Architecture

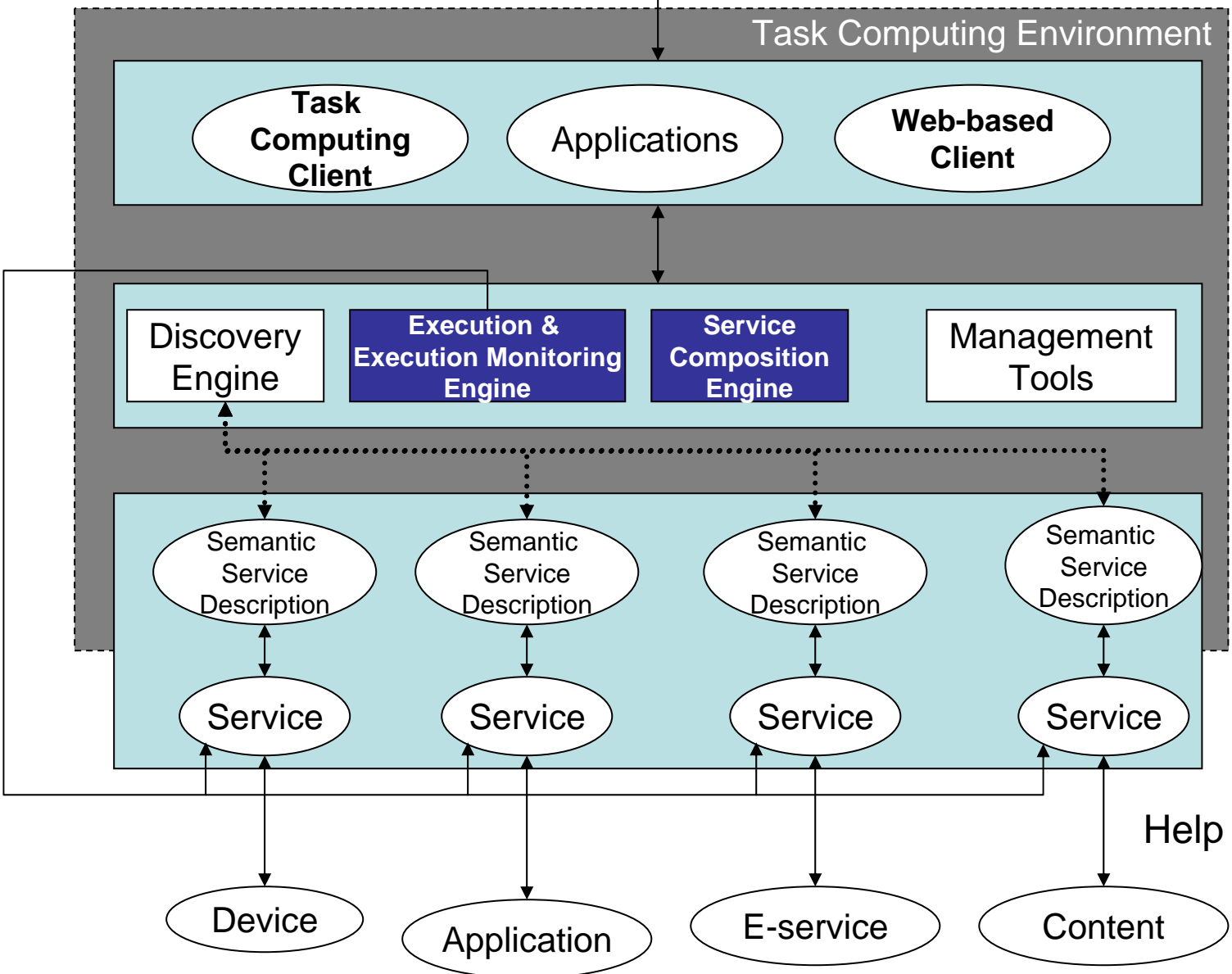
User

Presentation Layer

TC Function Layer

Service Layer

Realization Layer



By MINDSwap



# For Academic (from Industry)

- Please understand that, for companies:
  - Benefit/merits come first
    - Your research is one of many means to achieve them.
  - Trade-off with resources
    - Very limited people (often none) to support special/exotic languages/technologies (development and support of the products and services)
    - Speed, memory, scalability, etc.
  - Package your technology
    - Documentation, easy installation, Web site, etc.
    - Ever-changing grads
    - You can sell it to others easily.

