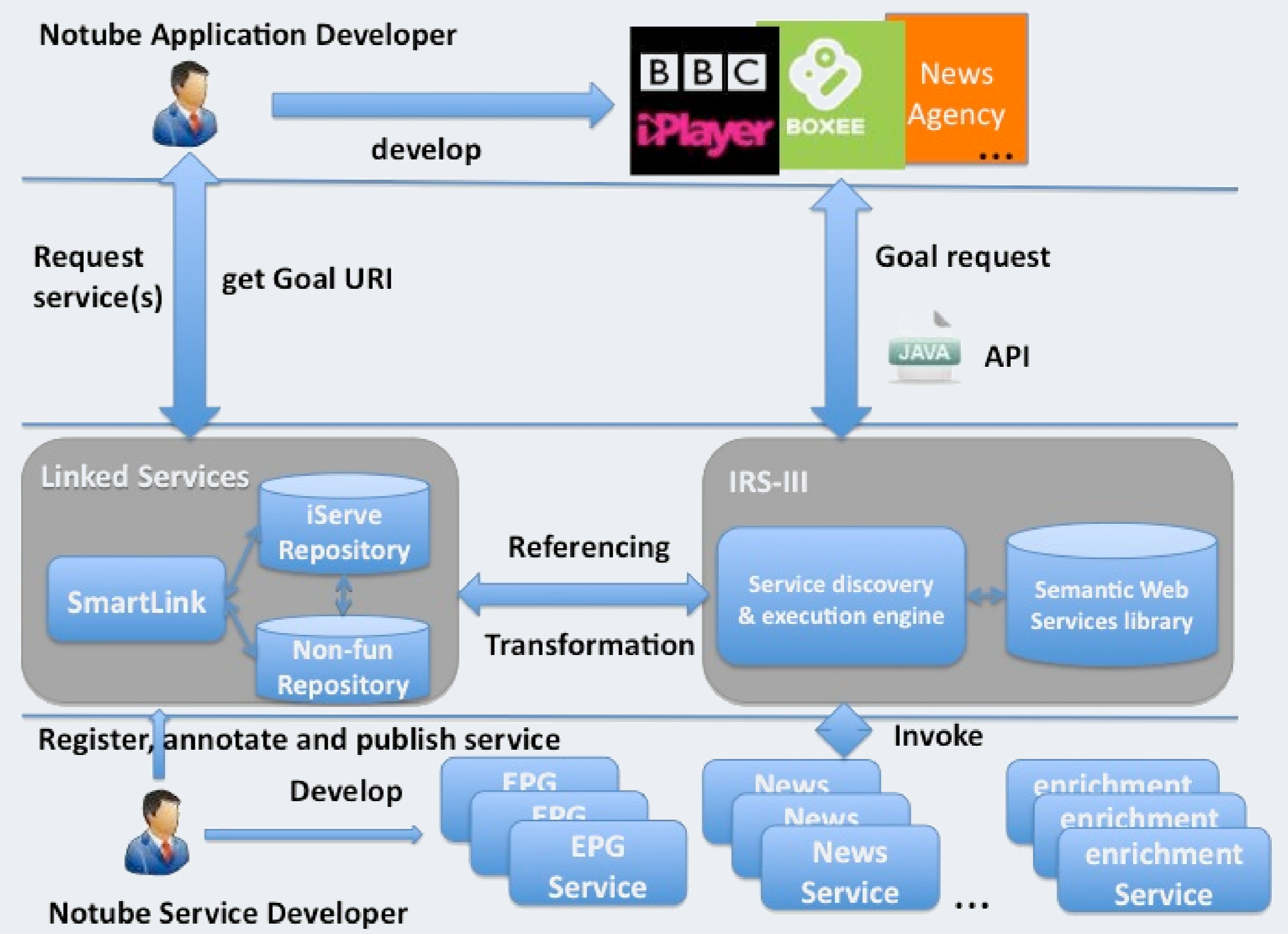




Classical sofa TV



Existing Approach



Novel TV features & Actors

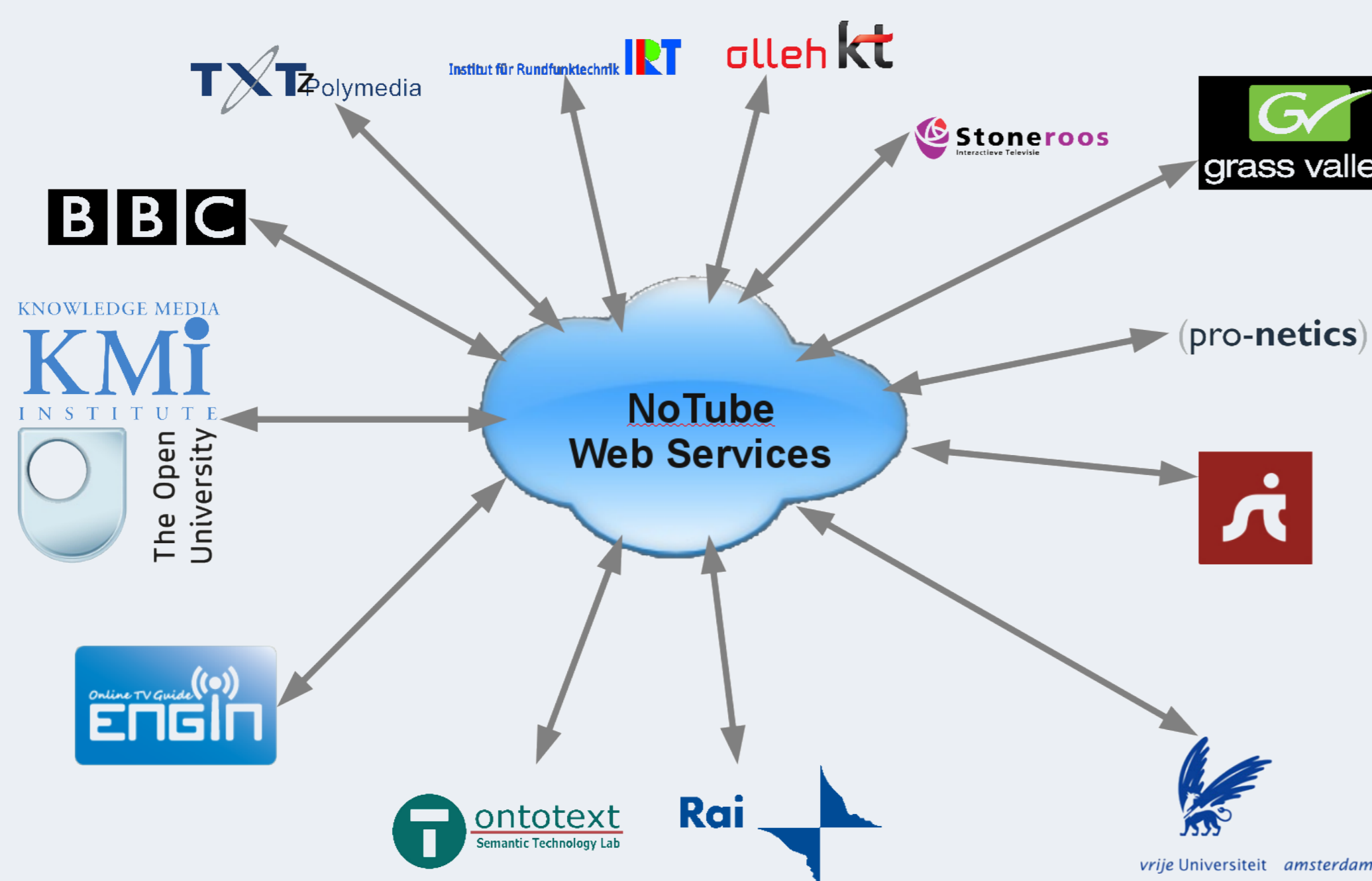
The next generation TV will be:

- Personalised television
- TV programs recommender
- Social network around TV preferences

Many actors in the future TV

- Content producers
- EPG providers
- Social network scientists
- Semantic enrichers
- Recommenders

NoTube actors



NoTube partners expose and consume services.

Problem statement

The TV services require the automation of discovery, mediation, composition, orchestration

- Which tasks are the most important to be automated?
- What are specific challenges for Internet TV services?
- How to benefit from advantages of both SWS approaches
 - handy semantic annotation of services
 - reasoning-based automation?
- How to integrate Linked services and Top-down approaches?

Hybrid Semantic Web services expectation

Linked services

- Pros
 - LOD compliant
 - Handy annotation
- Cons
 - Simple reasoning
 - Lack of execution facility

Top-down approaches

- Pros
 - Complex reasoning
 - Orchestration
 - Execution facility
- Cons
 - Requires SWS expertise
 - Heavy annotation

Existing approach (cont.)

IRS-III framework is

- a Semantic Web Service execution environment
- a 'broker' mediating between the goals of a client and relevant services
- adopts the WSMO conceptual model of services

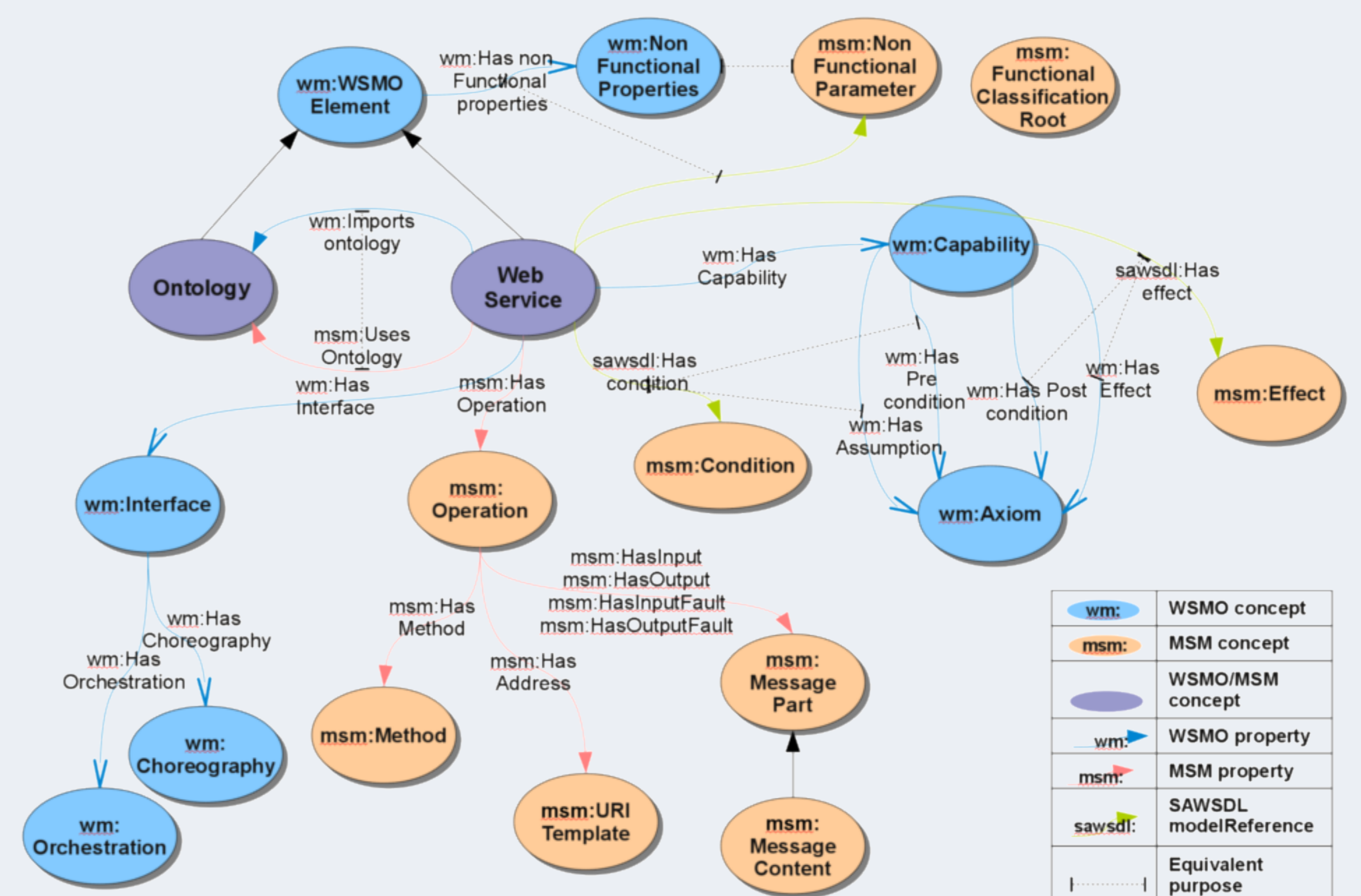
aims to

- provide non ambiguous models of services with a well-defined semantics
- reasoning to enables automatic **discovery, selection, composition, mediation, execution, and monitoring** of services.
- allowing the use of similarity-based **discovery and selection** approaches such as the **Conceptual Space** approach.

Linked Services inspired by the Linked Data movement, we publish 'linked services' with their semantic descriptions on the Web.

- Using WSMO-Lite and MicroWSMO as functional semantic description schema and using a number of domain vocabularies as description schema.
- Representing and persisting the semantic descriptions (functional and non-functional) as RDF data stored in a Sesame RDF database.
- A web-based form UI to **annotate and publish** services.

First Results



Conclusion and future work

Conclusions

- TV services require handy annotation and complex reasoning
- Hybrid SWS approach
- Despite the few overlaps between WSMO and MSM
- Functional similarities

Future work

- Translation mechanism between WSMO and MSM
- Two-way referencing of MSM and WSMO annotations
- iServe and IRS-III interoperability