

ODESeW: a Semantic Web application generation framework.

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Application development framework

- *A set of reusable libraries or classes used to implement the standard structure of a type of applications.*
- *A software component that models and solves a specific type of problem, providing a set of extensible and configurable components and an engine to coordinate and execute them.*

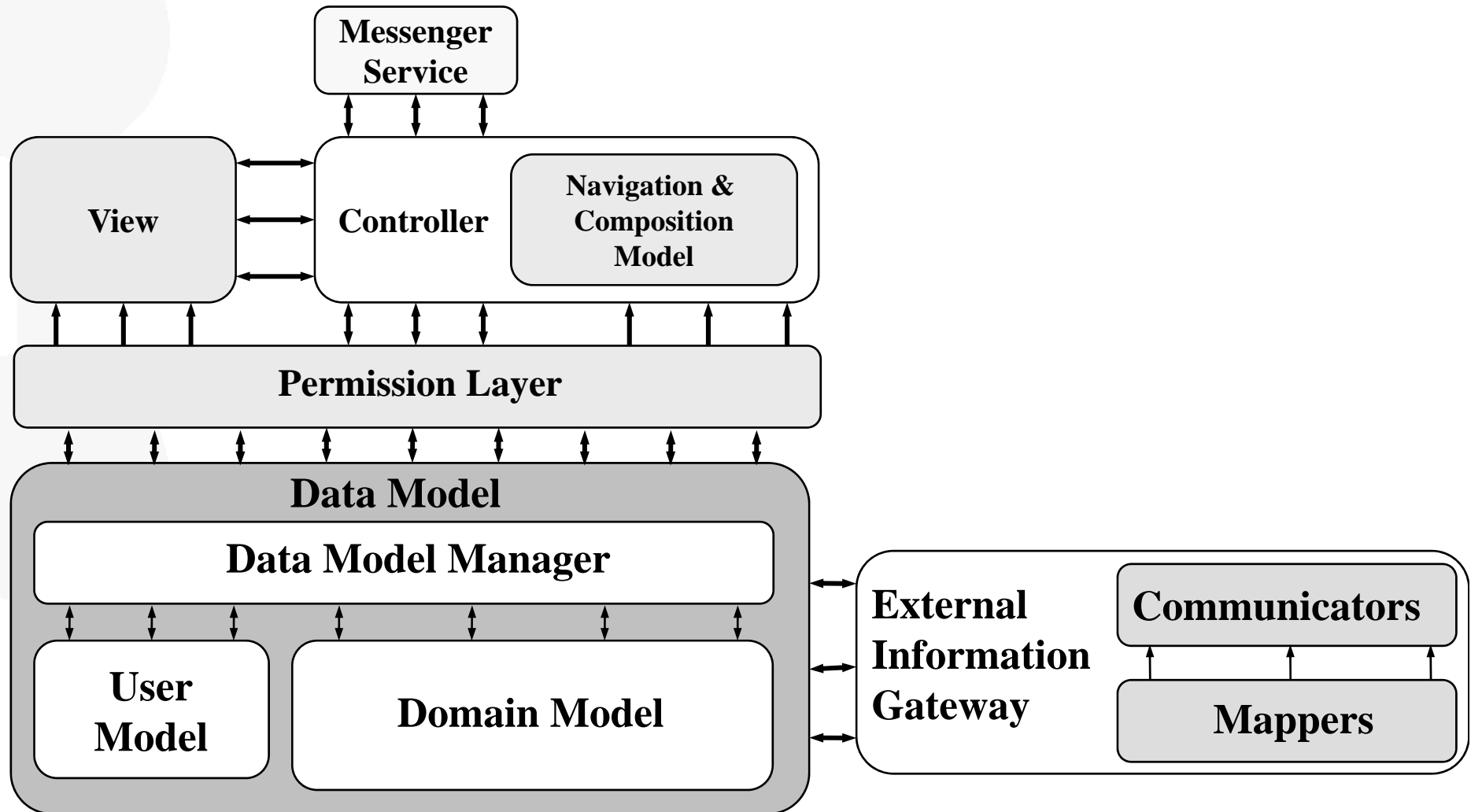
Web-based

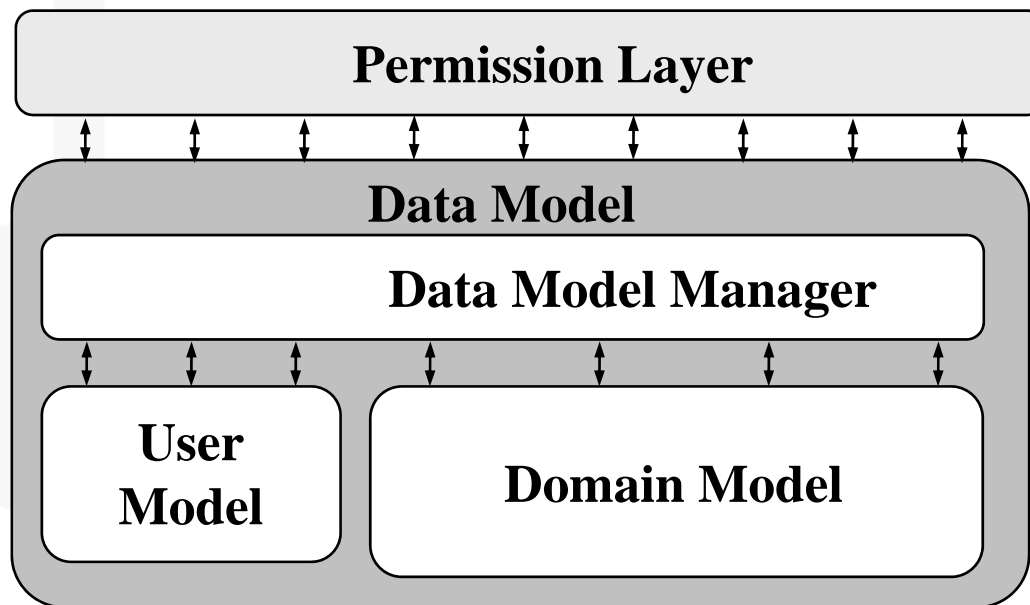
- Based on Struts (<http://struts.apache.org>)
 - Widely used platform for Web application development
 - Developers can still use Struts as in a non-Semantic Web application
- Based on the design pattern Model-View-Controller (MVC)

Based on ontologies

- Backbone of the Web application implemented
- WebODE ontology server
- RDF Schema and OWL ontologies

- Manages several ontologies as data model.
- Uses an ontology as the definition of user profiles.
- Restricts read/update access to instances.
- Provides tools for generating views for human (web pages) and views for software agents (RDF).
- The user navigation and the web pages composition are defined by a navigation and composition models. These models:
 - are reusable in different web application that share the same ontologies.
 - can customize the navigation&visualization for different users.
 - can specified differente navigation&visualization for different devices (smart phones, PDA, PC, etc).





Domain Model

- Ontologies about a domain

User Model

- Stores user profiles
- Represented as an ontology, which can be extended for each application

Data Model Manager

- Manages how to connect to the actual data

Permission Layer

- Restricts accesses and modifications on the Data Model
- Uses the User Model to retrieve the user profile

Renders data for users

- HTML for human users
- RDF for other software agents

Created using any standard Java Web technology for web visualization

- JSP, JSTL, Velocity, Portlet, etc.

Defines the application behaviour

- Receives actions from users, interprets them and executes them

Actions

- They can access and modify the Data Model
- Basic types of actions
 - Navigation
 - Instance edition
 - View inclusion
 - RDF export

Actions can be reused and extended

- Personalized actions

Actions are managed using:

- A Navigation Model
- A Composition Model

ODESeW is used at OEG for setting portals for EC European project.

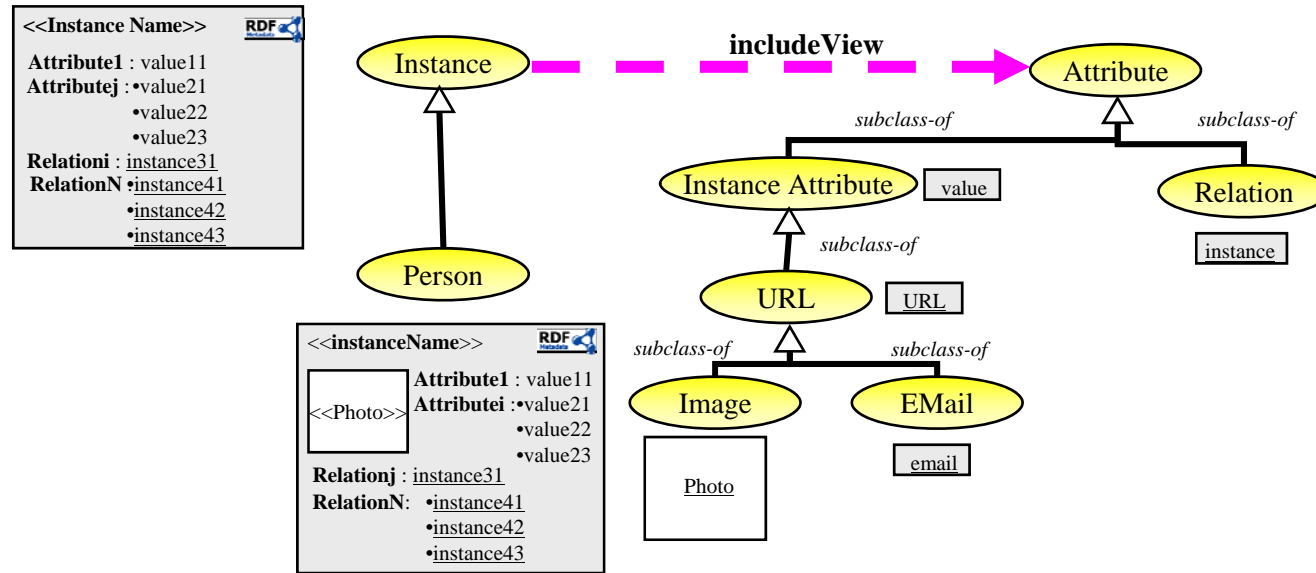
The portals are used as dissemination tool:

- Project description.
- List of deliverables.
- List of publications & software.
- Etc.

ODESeW support an application for Project Management:

- Reports for each partner:
 - Work Progress Report
 - Effort Report
 - Dissemination Report
- Monitorization of reports
- Compile the reports in different documents for the EC reviewers.

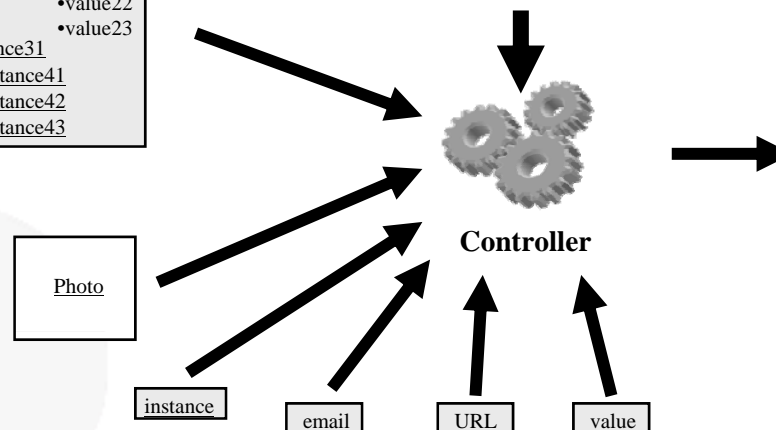
ODESeW View Composition Example



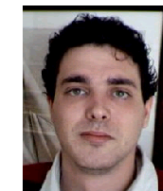
```

<<instanceName>>
Attribute1 : value11
Attributei : •value21
             •value22
             •value23
Relationj : instance31
RelationN : •instance41
             •instance42
             •instance43
    
```

The user requests the view of Angel Lopez



Ángel López-Cima



```

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Address:  Montegancedo, sn
Telephone: +34-91 336 6604
    
```

- belongs to: Universidad Politécnica de Madrid
- works in: V#P1.6 - Semantic Portal Structure
- is involved in:
- T1.6.1 Semantic portal analysis requirements and design
 - T1.6.3 Semantic portal prototype development
 - T1.6.4 Semantic Portal Unit and integration testing
 - T1.6.5 Content annotation and management
 - T1.6.6 hosting and running
 - <http://knowledaeweb.semanticweb.org>
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 - T1.6.6 hosting and running
 - <http://knowledaeweb.semanticweb.org>
- is author of:
- Create - V#P1.6 - Semantic Portal
 - D1.6.2 - Portal ontology