

I-X

Task Support on the Semantic Web

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Semantic Web Task Support

- The coordination of resource and activity is a key task in modern organizations - and the Semantic Web will provide increased opportunities for interaction.
- With this increase comes a greater need for support in managing collaborative activity.
- I-X technology provides support for mixed-initiative collaborations:
 - Founded on <I-N-C-A> (Issues, Nodes/activities, Constraints, Annotations) ontology.
 - I-X tool suite provides viewers, domain managers and editors, messaging tools, etc, to allow issues to be resolved and activities performed.



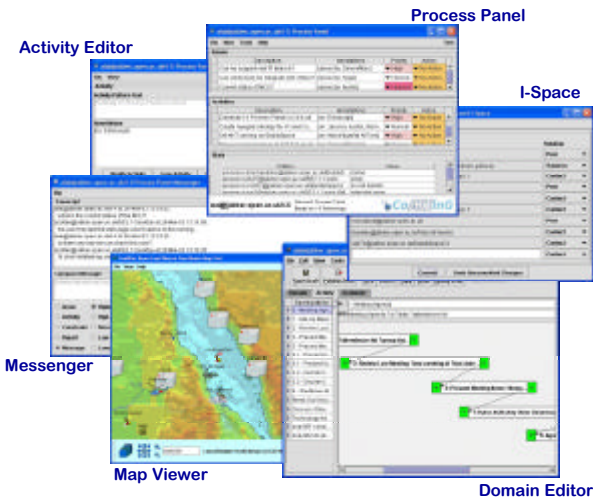
Workshop Organization Support

Example 1: Workshop Organization

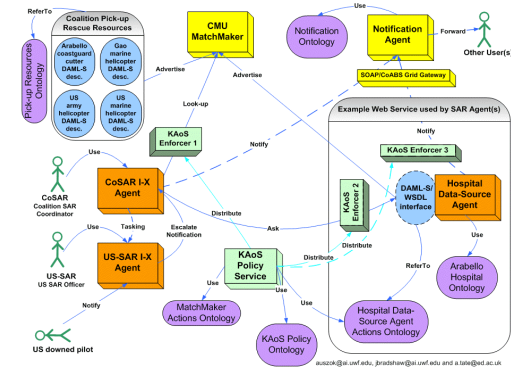
- Environment includes downloadable standard operating procedures (SOPs), along with human and computer helper agents.
- A 'Triplestore' repository of RDF facts provides up-to-date domain knowledge.
- The Organize Workshop SOP provides a decomposition of the task and links to helper agents – for instance:
 - Using RDQL queries to retrieve Triplestore facts, an I-Q agent is able to identify the major players in different fields.
 - The known capability of this agent ensures it is suggested when a relevant sub-task ('identify steering committee') becomes the focus of activity.

Example 2: Search and Rescue (SAR)

- Upon learning of downed aviator, SAR coordinator downloads appropriate SOP.
- Description of emergency locale – including available medical facilities – found on web as DAML-O ontologies and knowledge bases.
- An I-Q agent provides reasoning interface to these resources to identify appropriate hospitals for treating aviator.
- DAML-S matchmaker provides link to 'in the field' agents:
 - SAR resources – helicopters, patrol boats, etc – advertised as services.
 - Another I-Q agent constructs and sends queries to matchmaker and interprets results for coordinator.
- Environment allows coordinator to construct and implement effective rescue plan.



I-X Task Support Tools



SAR Environment Schematic



AIAI, IHMC, AKT Partners

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<http://i-x.info>

