Cruising the Semantic Web with Noadster

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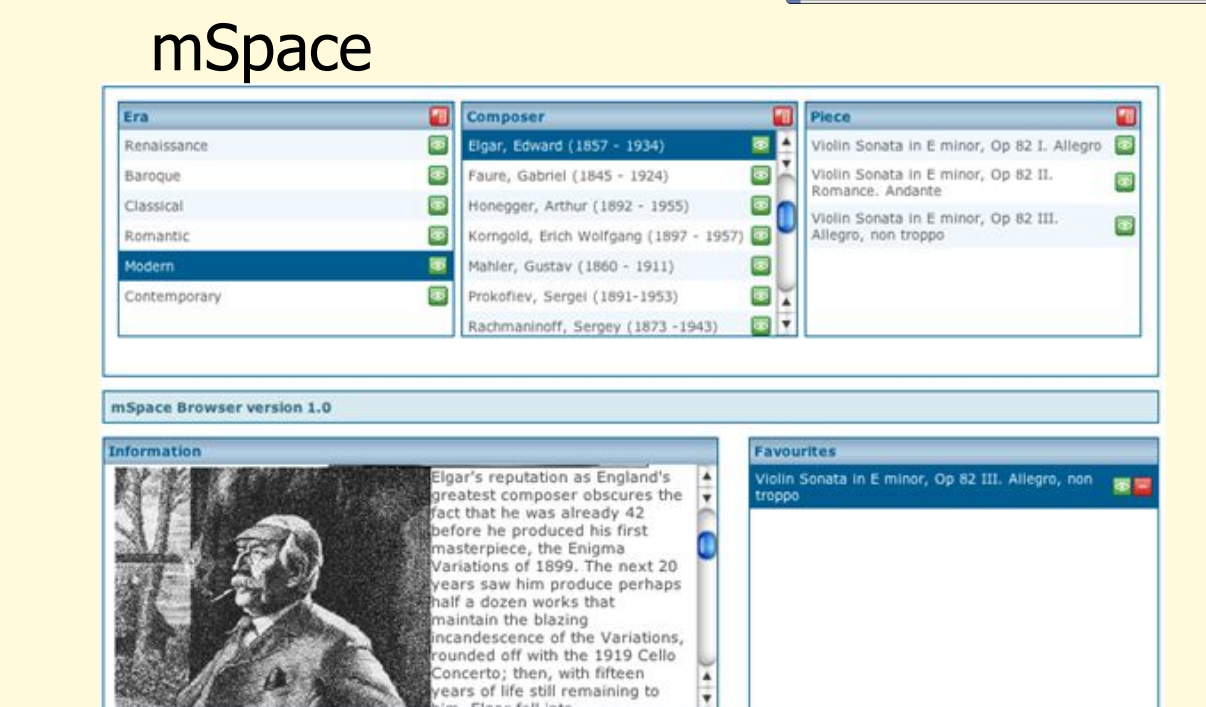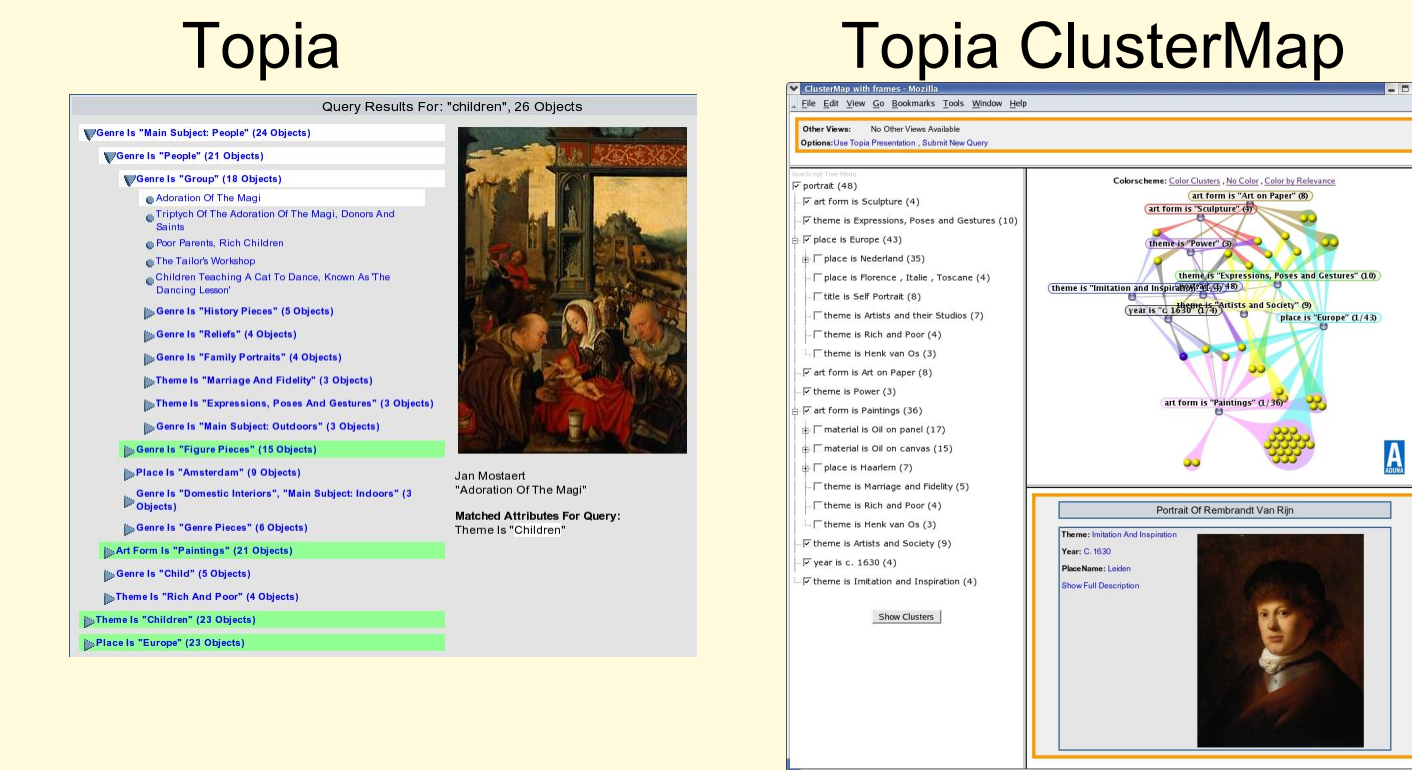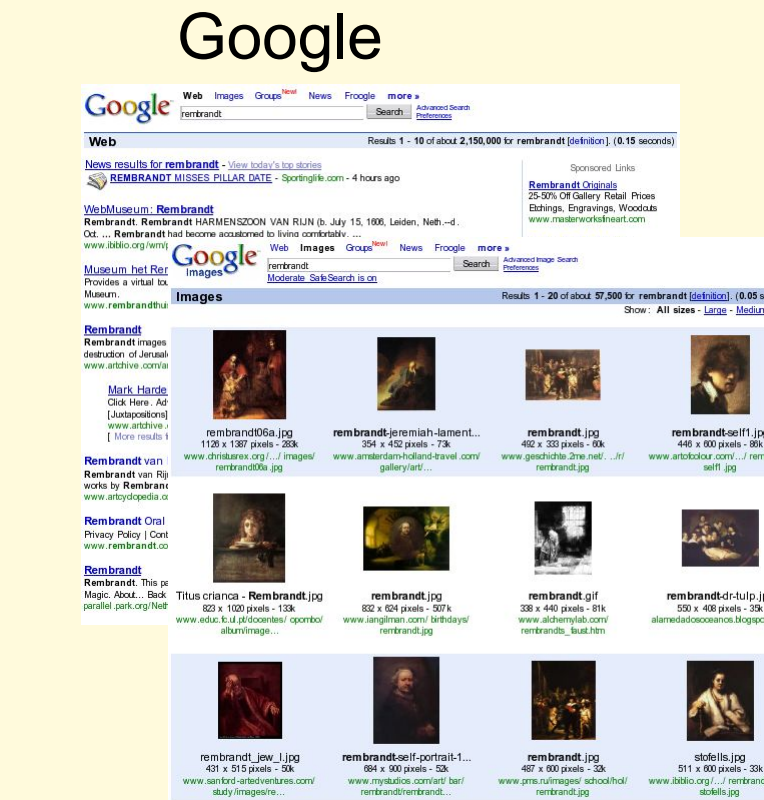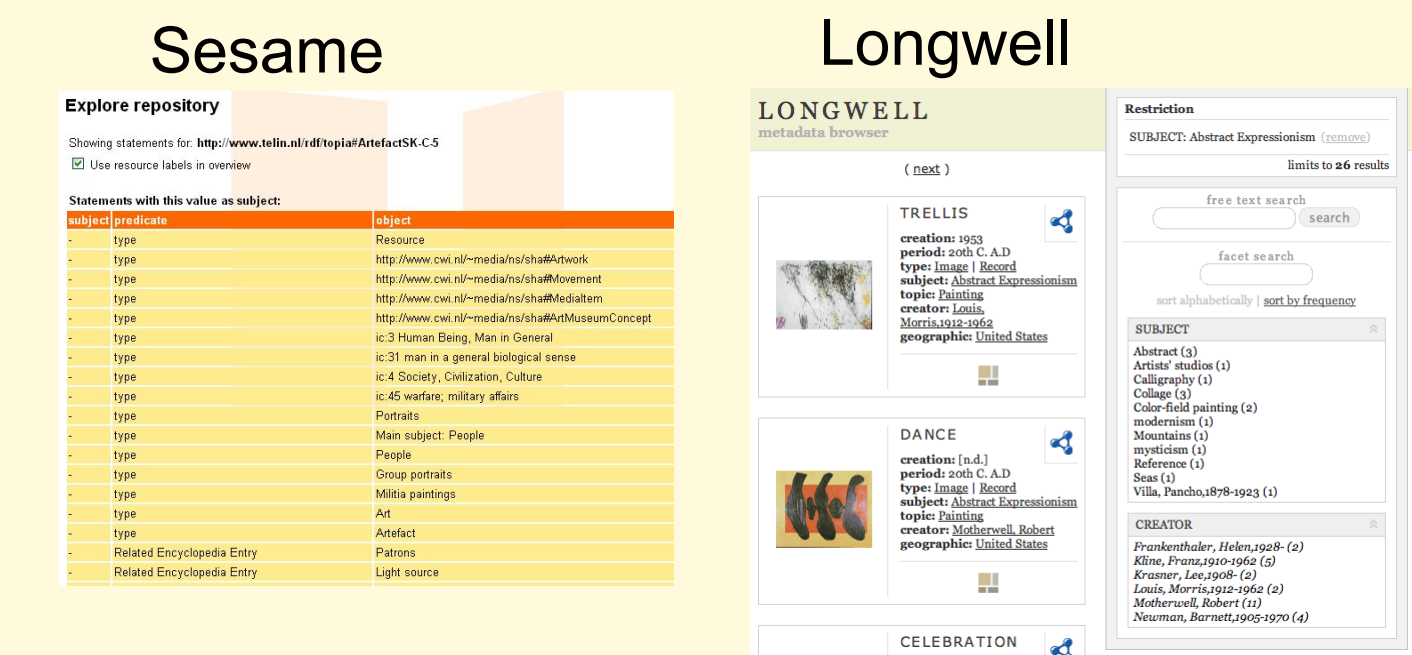Contribution : Domain-independent structuring of RDF search returns for semantic browsing
Why domain-independent? :
Immediate hypermedia access to any part of the Semantic Web

Core Concepts

Presentable cluster nodes
Stop word properties
Web vs semantic browsing mode
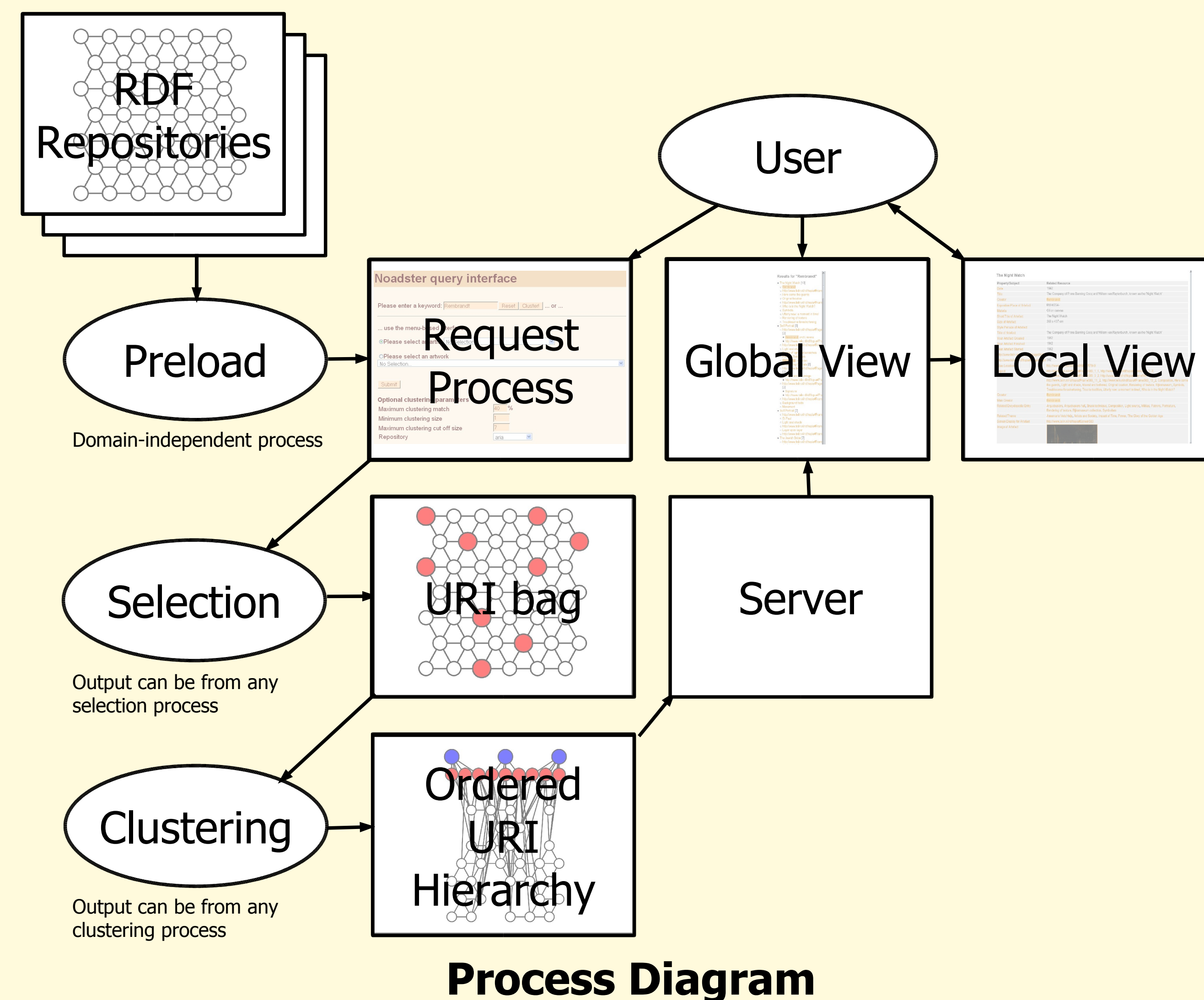**Assumptions**
· **Triples already harvested**
  · **General architecture still valid for the general Web**
· **RDF-annotated media available for display**
  · **Including images, literal, <rdfs:label> and <rdfs:comment>**
· **Extensible domain-independent foundation**
  · **Reasonable default display for any vocabulary**
  "Style sheets" for specific vocabularies

Views

Global
· **Search ala Google**
· **Grouped ala Clusty**
· **Works as outline**
· **Structured links of relevance throughout knowledge base**

Local
· **Like clicked link from Google**
· **Single topic from global interface**
· **Generated as Semantic Browser**

Request form

Start the process
String for RDF literal search
Noadster query interface
Please enter a keyword: Rembrandt   Reset   Cluster   or ...
Extension search help for specific domain
... use the menu-based interface:
⊙ Please select an artist No Selection...
○ Please select an artwork No Selection...
Submit
Optional clustering parameters
Maximum clustering match
Minimum clustering size
Maximum clustering cut off size
Repository
Prevents "stop words" for group topics
Controls size of groups
Select from multiple repositories

Global view
Local view

Click on global view item calls up its local view
<rdfs:label> becomes local view title
Results for "Rembrandt"
Highlighting of search string where found
Separate style for literal text
Resource URI shown when no <rdfs:label>
<rdfs:label> is text for each triple resrouce
Image resources directly shown
Shared property or subject placed in same cell
Cluster size shown, forms basis for sorting
<rdfs:label> is entry text for each cluster concept

Process Diagram

RDF Repositories
Preload — Domain-independent process
Selection — Output can be from any selection process
Clustering — Output can be from any clustering process
Request Process
URI bag
Ordered URI Hierarchy
User
Global View
Local View
Server

Related Work

Features	Hypertext	Semantic
Browse	Web browsers	Sesame / Longwell
Search	Google	Sesame
	Clusty	Topia / Topia ClusterMap
Hierarchy		mSpace
Rank	Google&Clusty	Topia
Sort	n/a	Topia
Cross-reference		Topia (highlighting)
Visual Style	CSS	Longwell
Structuring Style		Topia

Authoring Impact

Publish facts, not documents
· **Each fact immediately accessible**
· **Each fact immediately impacts structure**
Techniques
· **RDFS subproperty to labels and comments**
· **Infering enough common properties for clustering**

Semantic Web not just AI in XML
– **It's more familiar than you think**
– **It's about writing, sharing and conveying information**

Semantic browsing is hip and happening
  • **Emerging tools under active development**
  • **An emerging community: development groups and workshops**

Vision

Document structure is important interface
  • **Semantics make search results more sensibly structurable**
  • **Existing clustering tools generate document structure from semantics**
  • **Enticing progress made**
  • **Much exciting work to do**

What's next?
  • **Good, accessible RDF for browsing**
  • **Stylesheets for appearance and structure: Fresnel**
  • **The Mosaic for Semantic Browsing: Simile/Longwell?**